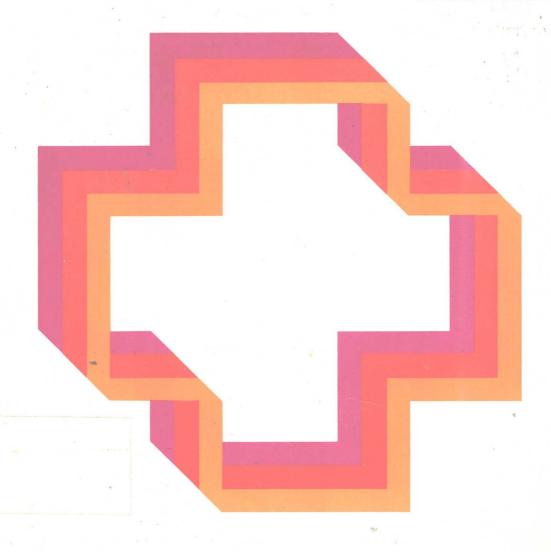
Sandra Smith's Review for NCLEX-RN

Seventh Edition



- Review of Nursing Content
- Current NCLEX Test Plan
- NCLEX Tests with Rationale

Sandra Smith's Review for NCLEX-RN

Seventh Edition

Sandra F. Smith, RN, MS



Copyright © 1992 by National Nursing Review, Inc. First edition copyright 1976 by National Nursing Review, Inc.

Manufactured in the United States of America. All rights reserved. No portion of this book may be reproduced in any form or by any means without written permisssion of the publisher.

International Standard Book Number: 0-917010-46-9

In the writing of this text, the authors and publisher have made every attempt to follow current nursing practice and to ensure that suggested diets, drug selection and dosages, and nursing procedures are up to date and conform with current recommendations and practices at time of publication. However, in view of new research conclusions, technological advancements, and government regulations, it is the responsibility of the nurse to be aware of any changes that may alter suggested drug and diet therapies or nursing protocols. The authors recommend that nurses and nursing students be aware of hospital and school policies regarding their role and responsibilities in performing nursing actions. The authors and publisher disclaim any liability, loss or damage incurred as a result of direct or indirect use of this book.

Copies of this book may be obtained from: **National Nursing Review, Inc.** 342 State Street, Suite 6
Los Altos, CA 94022
1-800-950-4095

CONTRIBUTING AUTHORS

Chapter Contributors

Barbara Devine Bode, RN, MN

University of Illinois—Doctoral Program

Juliet Marie Corbin, RN, DNSc University of California, San Francisco

Donna Johnson Duell, RN, MS

Cabrillo College

Dolores Hilden, RN, MS, PhD Marycrest College

Beverly Smith Meyer, RN, MS Oregon Health Sciences University

Sandra Fucci Smith, RN, MS Stanford University—Doctoral Candidate

Section Contributors

Lida G. Chase, RN, MS, PhD University of Hawaii

Lori Costa, RN, JD L.C. Associates, San Francisco

Kathleen Dooley, RN, AHNP, MBA V.A. Hospital, San Francisco

Joan Frommhagen, RN, MA, MN Cabrillo College

Barbara Martin, RN, MS Tulsa University

Susan D. North, RN, MS, ScD Johns Hopkins Medical Center

Virgil Parsons, RN, DNSc San Jose State University

Kate De Clue Schejbal, RN, PhD St. Louis University

JoAnn Rupert Behm, RN, MS, CCRN President, Applied Medical Training

Judith A. Yanda, RN, MS West Valley College

Editorial Advisors

Loretta Higgins, RN, MS, EdD Boston College

Andrea Hollingsworth, RN, PhD University of Pennsylvania

Kyra Hubis, RN, MSN Evergreen Valley College

Leslie Mancuso, RN, MSN Project Hope, Nursing Director

PREFACE

Passing the National Council Licensing Examination (NCLEX) is a milestone in your nursing career. You have entered a profession that requires years of preparation. This education culminates with passing the licensing examination which will enable you to begin practicing as a professional nurse. NCLEX, while only a test, actually determines whether or not you will be allowed to function in a professional role. This book, *Sandra Smith's Review for NCLEX*, was written with the explicit purpose of assisting you to pass NCLEX. Years of education, experience and teaching have enabled me to identify the essential nursing content that you must know to successfully pass NCLEX. Adequate preparation, using this book as a guide, will increase your confidence and enable you to review essential nursing concepts.

The best way to prepare for NCLEX is to thoroughly review the material most likely to be covered on the exam and to take practice tests that simulate NCLEX. With this objective in mind, Sandra Smith's Review for NCLEX-RN is organized into nine chapters. To keep pace with nursing education and State Boards, we have presented each chapter's content in terms of the Nursing Process. The outline format is designed to help you review quickly, as well as to emphasize significant content. The selection and presentation of content in this review text are directed toward minimizing your review time and maximizing your test results.

The comprehensive tests serve a dual purpose—to acquaint you with the type and format of questions to expect on the examination and to give you an opportunity to test and improve your knowledge of concepts and expertise in realistic nursepatient situations. The answers and rationale sections are intended to discourage rote memorization and to reinforce learning by describing the underlying principles which tell you why the answers are right or wrong.

Acknowledgments

I wish to extend my thanks to all of the contributing authors and to the many other people who helped with the development and production of this book. Because of their valuable assistance, this review book is available to help nursing students prepare for the current R.N. Licensure Examination.

Sandra L. Smith

CONTENTS

	INTRODUCTION	1
	RN Licensure Procedures	1
	Guidelines for Reviewing and Testing	
	NCLEX-RN Examination Dates	5
CHAPTER 1	NURSING THROUGH THE LIFE CYCLE	7
	Homeostatsis	8
	Stress	8
	Selye's Stress Adaptation Syndrome	10
	Growth and Development Through	
	The Life Cycle	11
	Children	11
	Early Adolescence	17
	Adolescence to Young Adulthood	19
	Adulthood	20
	The Aged	22
	Death, Dying, and Grief Process	23
	The Grief Process	23
	Death and Dying	24
	Human Sexuality	26
CHAPTER 2	NUTRITION AND PHARMACOLOGY	31
	Nutrition	32
	Essential Nutrients	32
	Therapeutic Diets	38
	Dietary Control for Disorders	47
	Enteral Feeding	48
	Nasogastric Tube Insertion	48
	Total Parenteral Nutrition (TPN)	51
	Procedure and Dressing Change	52
	Appendices	
	Nutritional Guidelines for Infants	
	and Children	59

	Dietary Allowances for Pregnancy and	
	Lactation	61
	Nutritional Guidelines for Pregnancy	63
	Pharmacology	65
	Drug Metabolism	65
	Origin and Nomenclature of Drugs	67
	Drug Classification	67
	Dosage and Preparation Forms	70
	Routes of Administration	71
	Medications	72
	Administering Medications	73
	Narcotic Administration	74
	Mathematical Conversions	78
	Governing Laws	80
	Appendices	
	Abbreviations and Symbols	82
	Conversion Tables	83
	Universal Precautions	83
	Drug Chart	85
CHAPTER 3	ONCOLOGY NURSING	87
	Cancer Incidence and Trends	88
	Risk Factors	88
	Early Detection Methods	89
	Treatment Methods	90
	Surgery	90
	Radiation	91
	Chemotherapy	92
	Pain in Cancer	96
	Psychosocial Aspects	97
CHAPTER 4	MEDICAL-SURGICAL NURSING	101
	Neurological System	102
	Anatomy and Physiology of the	
	Nervous System	102
	Neurologic Dysfunction	109
	Pain Management	113
	Seizure Disorders	114
	Trauma	117

120
121
123
127
130
131
132
134
135
135
137
141
144
145
149
151
155
156
161
162
166
166
166
173
176
179
181
182
183
189
191
191
198
199
204
207

Intestinal Disorders	209
Disorders of the Liver	214
Complications of Liver Disease	219
Gallbladder and Pancreas Disorders	220
Genitourinary System	224
Anatomy and Physiology	224
Renal Regulation of Fluid and Electrolytes	225
Acid-Base Regulation	230
Acid-Base Imbalances	231
Diagnostic Procedures	236
Surgical Interventions for Urinary System	242
Renal Failure	244
Dialysis: Treatment for Acute or Chronic	
Renal Failure	245
Surgical Interventions for Male Genital	
Disorders	249
Conditions of the Female Reproductive Tract	250
Surgical Interventions for Female	
Reproductive System	25 3
Musculoskeletal System	255
Musculoskeletal System Anatomy and Physiology	255 256
_	
Anatomy and Physiology	256
Anatomy and Physiology Joint Diseases	256 259
Anatomy and Physiology Joint Diseases Bone Alterations	256 259 260
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery	256 259 260 264
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery	256259260264265
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb	256 259 260 264 265 266
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb Integumentary System	256 259 260 264 265 266
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb Integumentary System Anatomy and Physiology	256 259 260 264 265 266 268
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb Integumentary System Anatomy and Physiology Common Skin Lesions	256 259 260 264 265 266 268 268 270
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb Integumentary System Anatomy and Physiology Common Skin Lesions Venereal Diseases and Cutaneous Lesions	256 259 260 264 265 266 268 268 270 271
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb Integumentary System Anatomy and Physiology Common Skin Lesions Venereal Diseases and Cutaneous Lesions Allergic Responses	256 259 260 264 265 266 268 270 271 272
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb Integumentary System Anatomy and Physiology Common Skin Lesions Venereal Diseases and Cutaneous Lesions Allergic Responses Collagen Diseases Burns Diseases of the Blood and Spleen	256 259 260 264 265 266 268 270 271 272 273
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb Integumentary System Anatomy and Physiology Common Skin Lesions Venereal Diseases and Cutaneous Lesions Allergic Responses Collagen Diseases Burns	256 259 260 264 265 266 268 270 271 272 273 274
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb Integumentary System Anatomy and Physiology Common Skin Lesions Venereal Diseases and Cutaneous Lesions Allergic Responses Collagen Diseases Burns Diseases of the Blood and Spleen	256 259 260 264 265 266 268 270 271 272 273 274
Anatomy and Physiology Joint Diseases Bone Alterations Knee Surgery Spinal Surgery Removal of a Limb Integumentary System Anatomy and Physiology Common Skin Lesions Venereal Diseases and Cutaneous Lesions Allergic Responses Collagen Diseases Burns Diseases of the Blood and Spleen Blood and Blood Factors	256 259 260 264 265 266 268 270 271 272 273 274 277

	Malignancy of the Lymph System Autoimmune Disorders	287 288
	Endocrine System	289
	-	289
	Anatomy and Physiology	
	Pituitary Gland Disorders	294
	Adrenal Cortex Disorders	295
	Adrenal Medulla Disorders	297
	Thyroid Gland Disorders	298
	Parathyroid Glands Disorders	302
	Pancreas Disorders	303
	Chronic Complications	307
	Perioperative Care Concepts	311
	Preoperative and Postoperative Care	311
	Anesthesia	313
	Common Postoperative Complications	316
	Postoperative Complications Chart	322
	Shock States	328
	Fluid Replacement Therapy	333
	Transfusion Reactions	335
	Blood Component Therapy	338
	Surgical Positions	339
	Nursing Care for AIDS	341
	Characteristics	341
	Assessment	342
	Implementation	343
	Psychosocial Care	344
	1 Sychosociai Care	944
CHAPTER 5	MATERNITY NURSING	345
	Anatomy and Physiology of Female	
	Reproductive Organs	346
	Obstetrical Assessment	349
	Antepartum Period	356
	Antepartal Maternal Changes	356
	Fetal Maturity and Placental Function	366
	Complications of Pregnancy	368
	Pregnancy Induced Hypertension	373
	Medical Diseases and High Risk Pregnancy	375

	Venereal Diseases	380
	Associated Complications of Pregnancy	382
	Intrapartum Period	385
	Labor and Delivery	385
	Fetal Assessment During Labor	388
	Monitoring Fetal Heart Rate	390
	Stages and Phases of Labor	391
	Complications of Labor and Delivery	394
	Obstetric Analgesia and Anesthesia	401
	Operative Obstetrics	403
	Postpartum Period	406
	Physiology of the Puerperium	406
	Emotional Aspects of Postpartum Care	407
	Complications of the Puerperium	409
	Newborn	414
	Newborn Assessment	419
	High Risk Infants	423
	Parenthood	432
	Infertility	432
	Common Drugs in Obstetrics and Gynecology	437
	Drugs Adversely Affecting the Human Fetus	439
CHAPTER 6	PEDIATRIC NURSING	441
	General Assessment of the Child	
	•	442
	General Principles	442
	Psychosocial Adjustment	445
	Pediatric Physical Assessment	449
	Neurological System	457
	Neurological Disorders	460
	Cardiovascular System	466
	Congenital Heart Conditions	469
	Cyanotic Type of Defects	469
	Acyanotic Type of Defects	471
	Acquired Cardiac Disease	473
	Cardiac Surgery	473

Respiratory System	474
Low Obstructive Respiratory Conditions	476
High Obstructive Respiratory Conditions	478
Associated Conditions	479
Gastrointestinal System	482
Gastrointestinal Disorders	484
Cleft Lip and Cleft Palate	487
Parasitic Worms	489
Renal System	491
Renal Disorders	492
Urinary Disorders	493
Blood and Lymph System	494
Disorders of the Blood	494
Musculoskeletal System	496
Musculoskeletal Disorders	497
Fractures	500
Integumentary System	504
Skin Disorders	505
Burns	505
Endocrine System	507
Thyroid Gland Disorders	508
Pituitary Gland Disorders	508
Disorder of the Pancreas	508
Pediatric Oncology	511
Chemotherapy	511
Radiation	512
Malignant Diseases	512
Bone Tumors	514
Special Topics in Pediatric Nursing	515
The Mentally Retarded Child	515
Accidents	517
Psychosocial Disorders	517
Death and Children	520
Dental Development	521
Immunizations	521
Drug Conversion for Children	521

	Pediatric Development Chart	522
	Pediatric Communicable Diseases	528
C	DOLLOW AMDRO STUDGISTO	F.0.0
CHAPTER 7	PSYCHIATRIC NURSING	529
	The Nurse-Client Relationship	530
	Therapeutic Communication Process	351
	Anxiety	533
	Anxiety Disorders	536
	Somatoform Disorders	538
	Eating Disorders	540
	Dissociative Disorders	542
	Personality Disorders	542
	Affective Disorders	543
	Substance Abuse	548
	Organic Brain Syndrome	552
	Schizophrenic Disorders	556
	Paranoid Disorders	559
	Child Psychiatry	560
	Adolescent Adjustment Disorders	562
	Psychotropic Drugs	564
	Treatment Modalities	566
	Rape Intervention	569
	Appendix 1. Therapeutic Communication	
	Techniques	57 3
	Appendix 2. Blocks to Communication	574
	Appendix 3. Ego-Defense Mechanisms	575
	Appendix 4. Drug Classification Chart	577
	Appendix 5. Mental Assessment Summary	579
	Glossary	584
CHAPTER 8	GERONTOLOGICAL NURSING	591
	General Concepts of Aging	592
	Caring for the Aged Person	593
	The Aging Body by System	594
	Diseases Common in the Aged	601
	Common Problems from Immobility	607
	Problem Areas for Elderly Clients	608
	Lab Values in the Elderly	611

CHAPTER 9	LEGAL ISSUES IN NURSING	613
	Nurse Practice Act	614
	Professional Misconduct and	
	Potential Penalties	614
	Nature of the Law	615
	Key Legal Terms	615
	Risk Areas	616
	Drugs and the Nurse	617
	Legal Issues in Psychiatric Nursing	618
	Nursing Management—Delegation of	
	Activities	618
	COMPREHENSIVE TESTS	584
	INDEX	655

INTRODUCTION

The present edition of Sandra Smith's Review for NCLEX provides you with a thorough review of nursing content on which candidates will be tested for RN licensure. This edition has been designed to be compatible with the latest National Council Licensure Examination-RN (NCLEX). Special emphasis has been placed on presenting the content within the framework of the Nursing Process: Assessment, Planning and Analysis, Implementation, and Evaluation. New clinical situations and multiple choice questions in a comprehensive format simulate the current licensure examination.

The content and format of the book are planned to help you review efficiently and effectively. Nursing curriculum varies from school to school, and students may find that they are more knowledgeable in one content area than another. Sandra Smith's Review for NCLEX will enable you to quickly recognize your areas of expertise and concentrate on less familiar content. The review questions at the end of the text will also assist you to test your mastery of basic nursing principles and their application to clinical situations.

The RN licensure exam tests the candidate's knowledge of nursing rather than physiology, chemistry, medicine, etc. Test questions focus on nursing knowledge, nursing techniques, and nursing interventions in varied clinical situations. Sandra Smith's Review for NCLEX includes the subjects of anatomy and physiology as a general review for students unsure of basic principles. This book concentrates on pathophysiology, clinical manifestations and treatment of diseases and, most important, nursing management. The content was selected especially for student nurses to utilize in reviewing for both nursing tests at school and the licensure exam.

The introduction to this book presents general background information on RN licensure, previews the contents of *Sandra Smith's Review for NCLEX*, and provides helpful techniques for studying and achieving positive test results. The

introduction also provides guidelines for the most effective methods of using this review book.

RN Licensure Procedures

The main purpose of the RN licensure examination is to help ensure that only those candidates who have demonstrated a minimum level of competence to provide safe and appropriate care in an entry-level nursing position are granted a license. Throughout the United States and in the District of Columbia, Guam, and the Virgin Islands, candidates are required to pass a licensing examination as one of the prerequisites to licensure as a Registered Nurse. Today's emphasis on consumer protection affects the entire medical field and its related professions, including nursing and the Allied Health Professions. This system of licensure protects the general public and, at the same time, confirms for the registered nurse that he or she can embark on a career with professional confidence.

Each state is responsible for issuing the license to practice as a Registered Nurse in the state. Presently, all of the state Boards of Registered Nursing contract with an independent organization—the National Council of State Boards of Nursing (NCSBN)—for the licensure examination and its processing and scoring. The NCSBN, in turn, selects the questions for each examination from a reservoir, or pool, of questions submitted by various professional nurses who represent all of the major clinical specialties and geographical regions of the United States. The examination is in effect a national test administered and ultimately controlled by each individual state. NCLEX consisted of 480 test questions from 1982 through 1984. This number was reduced to 373 items commencing with the February 1985 exam.

The NCLEX-RN is the means by which each state can measure and evaluate applicants' qualifications to practice nursing safely and effectively. Both United States and foreign-trained nurses must achieve passing scores before becoming licensed RNs. The candidate will receive a single score (unlike the prior system of five tests with a score for each). The NCSBN has established a criterion-referenced scoring

system which is based upon a review of each question by a panel of judges. The recommended passing score is 1600, and the passage rate for first-time candidates is expected to be approximately 85 percent.

The NCLEX-RN is given over a two-day period each February and July throughout the United States. A candidate for the examination should contact the licensure authority in the state in which the candidate plans to practice nursing. Each state selects its own minimal passing score and decides whether to accept test results from another state. Since most jurisdictions require that the candidate's application be filed one to two months prior to examination, applicants should plan sufficiently ahead to assure that key dates are not missed.

New NCLEX-RN Test Plan

According to the National Council, "The purpose of the test plan is to guide the selection of content and behaviors to be tested" on NCLEX-RN. To accomplish this, the new test plan requires knowledge of:

- . The Nursing Process
- Management and coordination of safe, effective care
- · Client's physiological needs
- · Client's psychosocial needs
- · Maintenance and promotion of health

The above five categories of nursing knowledge integrate the following elements in the NCLEX.

- Accountability
- · Mental health concepts
- · Pharmacology
- Nutrition
- · Body structure and function
- · Pathophysiology
- Principles of asepsis
- · Growth and development
- Documentation
- · Communication and teaching

Additional areas of content you can expect to be included on NCLEX that will test your knowledge, skills and abilities are basic principles of management; continuity of care; psychodynamics of behavior; treatment modalities including group dynamics; response to therapies; environmental and personal safety measures; client's rights; confidentiality; infectious agents; immunity; routine nursing measures; ADLs; managing emergencies; comfort measures; reproduction and human sexuality; birthing and parenting; effects of immobility; use of special equipment; and cultural and religious influences.

Test Plan Framework

Levels of cognitive ability (based on Bloom's Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook 1, 1956), are included in the examination. The four levels that are specified are knowledge, comprehension, application, and analysis. The questions are not weighted according to these levels, but the National Council points out that most test items will be at the application and analysis levels. Locus of Decision is not specified according to weighting of the test items in the new test plan.

The framework of the new test plan, based on a major study that reflected entry-level nursing practice activities (identified in an extensive job analysis), is based on two major components:

- · Phases of the Nursing Process
- · Client Needs

Phases of the Nursing Process

The phases of the Nursing Process that are measured in NCLEX include Assessment, Analysis, Planning, Implementation, and Evaluation. Nursing Diagnosis is included as an essential step in the Analysis phase. The candidate for licensure can expect approximately equal emphasis to be placed upon each of these categories of nursing behaviors. While NCLEX questions are unlikely to test knowledge of nursing process definitions, the questions will be phrased in terminology reflecting the five phases. For example, a multiple-choice question will ask which assessment is the most important for particular circumstances (the specific clinical situation that is presented), then the four answer options will be phrased as assessment (observation) parameters. If a question asks for nursing implementation, the four alternatives will be phrased as nursing actions or interventions.

Client Needs

The basic health needs of clients are grouped under four broad categories which are weighted according to the results of a job analysis study completed in 1986. The weighting assigned to each category is reflected in the percentage of questions you will find in the current NCLEX.

Safe, effective care 25-31 percent environment 42-48 percent Physiological integrity 9-15 percent Psychosocial integrity Health promotion and 12-18 percent maintenance

Safe, Effective Care Environment: Category I

In order to meet the client's needs in this area, the nurse must be able to provide and direct nursing care in the following areas:

- · Coordinate care
- · Quality assurance
- · Goal-oriented care
- · Environmental safety
- · Preparation for treatments and procedures
- · Safe and effective treatments and procedures

Physiological Integrity: Category II

To meet the client's needs for physiological integrity—which includes potentially life-threatening conditions and/or chronically recurring physiological conditions, and potential complications or untoward effects of treatments of management modalities—the nurse must be able to provide and direct nursing care in the following areas:

- · Physiological adaptation
- · Reduction of risk potential
- · Mobility
- · Comfort
- Provision of basic care

Psychosocial Integrity: Category III

To meet the client's needs for psychosocial integrity during periods of stress or crisis-related situations, the nurse must be able to provide and direct nursing care in the following areas:

- · Psychosocial adaptation
- · Coping/adaptation

Health Promotion and Maintenance: Category IV

To meet the client's needs of health promotion and maintenance throughout the life cycle, the nurse must be able to provide and direct nursing care for clients and their significant others in the following areas:

- · Continued growth and development
- · Self-care
- Integrity of support systems
- · Prevention and early treatment of dis-

*Adapted from the NCLEX-RN Test Plan National Council Licensure Examination for Registered Nurses, 1988.

Organization and Presentation of **Review Material**

The NCLEX comprehensive examination will draw from the candidate's entire spectrum of nursing knowledge and may appear formidable. Furthermore, actual clinical situations require that you apply your knowledge base to problem solving, decision making, and delivery of quality client care. To provide you with an efficient and effective review aid, the subject matter of Sandra Smith's Review for NCLEX is presented in the following categories:

- Nursing Through the Life Cycle
- · Nutrition and Pharmacology
- AIDS: Theory and Nursing Care
- Medical-Surgical Nursing
- Maternity Nursing
- Pediatric Nursing
- Psychiatric Nursing
- Gerontological Nursing
- Legal Aspects of Nursing

Each chapter, or subject area, contains material on both nursing theory and its practical application. The nursing theory includes pathophysiology, clinical manifestations of diseases, diagnosis and treatment of medical conditions, and nursing management. As appropriate, this material is organized within the key steps of the Nursing Process: Assessment, Analysis, Planning, Implementation, and Evaluation.