

EDITION

4

deWit's Medical-Surgical Nursing

Concepts and Practice

Stromberg



Medical-surgical nursin
WY150 S919M c2021



B0053232
bib:13399115729



Evolve®

Student Resources on Evolve
Access Code Inside

3251 Riverport Lane
St. Louis, Missouri 63043

DEWIT'S MEDICAL-SURGICAL NURSING: CONCEPTS AND PRACTICE, FOURTH EDITION

ISBN: 978-0-323-60844-2

Copyright © 2021 by Elsevier, Inc. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage and retrieval system, without permission in writing from the publisher. Details on how to seek permission, further information about the Publisher's permissions policies and our arrangements with organizations such as the Copyright Clearance Center and the Copyright Licensing Agency, can be found at our website: www.elsevier.com/permissions.

This book and the individual contributions contained in it are protected under copyright by the Publisher (other than as may be noted herein).

Notice

Practitioners and researchers must always rely on their own experience and knowledge in evaluating and using any information, methods, compounds or experiments described herein. Because of rapid advances in the medical sciences, in particular, independent verification of diagnoses and drug dosages should be made. To the fullest extent of the law, no responsibility is assumed by Elsevier, authors, editors or contributors for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions, or ideas contained in the material herein.

Previous editions copyrighted 2017, 2013, and 2009.

Library of Congress Control Number: 2019951917

เลขที่..... WP150
..... 0.919M C2021
เลขทะเบียน..... B0053232
..... 81-9. 2563

Senior Content Strategist: Nancy O'Brien
Senior Content Development Manager: Lisa Newton
Senior Content Development Specialist: Laura Selkirk
Publishing Services Manager: Julie Eddy
Senior Project Manager: Tracey Schriefer
Design Direction: Renee Duenow

Printed in Canada

Last digit is the print number: 9 8 7 6 5 4 3 2 1



Working together
to grow libraries in
developing countries

www.elsevier.com • www.bookaid.org

Contents

UNIT I MEDICAL-SURGICAL NURSING SETTINGS, 1

1 Caring for Medical-Surgical Patients, 1

- Caring for Medical-Surgical Patients, 1
- Roles of the LPN/LVN, 2
- Employment Opportunities, 4
- Ethical and Legal Practice, 4
- Quality and Safety, 4
 - Evidence-Based Practice (EBP), 5
 - Quality Improvement, 5
 - Informatics, 6
 - Safety, 6
- Health Care Today, 6
 - Biomedicine, 6
 - Complementary and Alternative Medicine (CAM), 6
 - Healthy People 2030, 7
- Financing of Health Care, 7
 - Health Insurance: Government and Private Funding, 7
 - Cost Containment, 8
- Providing Holistic Care, 9
 - Promoting a Therapeutic Nurse-Patient Relationship, 9
 - Meeting Cultural Needs, 11
 - Meeting Spiritual Needs, 11

2 Critical Thinking and the Nursing Process, 15

- Critical Thinking and Clinical Judgment, 15
 - Factors That Influence Critical Thinking and Nursing Care, 16
 - Integrating Critical Thinking and the Nursing Process, 17
- Applying LPN/LVN Standards in Medical-Surgical Nursing, 17
 - Assessment (Data Collection), 18
 - Analysis and Nursing Diagnosis, 23
 - Planning, 24
 - Implementation, 25
 - Evaluation, 26
- Interdisciplinary (Collaborative) Care Plans, 26

UNIT II MEDICAL-SURGICAL PATIENT CARE PROBLEMS, 30

3 Fluids, Electrolytes, Acid-Base Balance, and Intravenous Therapy, 30

- Distribution and Regulation of Body Fluids, 31
 - Pathophysiology, 31

- Osmolality, 32
 - Movement of Fluid and Electrolytes, 32
- Fluid Imbalances, 34
 - Pathophysiology, 34
 - Deficient Fluid Volume, 35
 - Nausea and Vomiting, 36
 - Diarrhea, 39
 - Excess Fluid Volume, 39
 - Home Care, 41
- Electrolytes, 41
 - Electrolyte Imbalances, 41
- Acid-Base System, 46
 - Physiology, 46
- Acid-Base Imbalances, 47
 - Pathophysiology, 47
 - Arterial Blood Gas Analysis, 48
 - Respiratory Acidosis, 48
 - Metabolic Acidosis, 49
 - Respiratory Alkalosis, 50
 - Metabolic Alkalosis, 50
 - Home Care, 50
- Intravenous Fluid Therapy, 50
 - Nursing Responsibilities in Administering Intravenous Fluids, 51
 - Calculating and Regulating the Rate of Flow, 56
- Nursing Management, 58**
- Community Care, 59

4 Care of Preoperative and Intraoperative Surgical Patients, 63

- Surgery, 63
- Technological Advances in Surgery, 63
- Autologous Blood for Transfusion, 65
- Bloodless Surgery, 65
- Perioperative Nursing Management, 65**
- The Surgical Team, 76
- The Surgical Suite, 77
 - The Surgical Holding Area, 77
 - Roles of the Circulating Nurse and the Scrub Person, 77
- Anesthesia, 78
 - General Anesthesia, 78
 - Regional Anesthesia, 78
 - Procedural or Conscious Sedation Anesthesia (Moderate Sedation), 79
 - Local Anesthesia, 79
- Potential Intraoperative Complications, 80

5 Care of Postoperative Surgical Patients, 83

Immediate Postoperative Care, 83

Postanesthesia Care Unit, 83

Nursing Management, 85

Discharge Planning, 96

Community Care, 99

6 Infection Prevention and Control, 102

The Infectious Process and Disease, 102

Factors That Influence Infectious

Disease, 103

Disease-Producing Pathogens, 103

The Body's Defense Against Infection, 105

Skin, 105

Normal Flora, 107

The Inflammatory Response, 109

The Immune Response, 110

Infection Prevention and Control, 111

Preventing and Controlling the Spread of Infection, 111

Precaution Categories for Infection Prevention and Control, 111

Health Care–Associated Infections, 115

Multidrug Resistant Organisms (MDRO), 116

The Cost of Health Care–Associated Infections, 116

Nursing Interventions to Prevent Health Care–Associated Infections, 116

Infection Surveillance and Reporting, 117

Medical Asepsis and Surgical Asepsis, 117

Sepsis and Septic Shock, 117

Nursing Interventions for Patients

With Sepsis, 118

Nursing Management, 118

Community Care, 123

Home Care, 123

Long-Term Care, 123

7 Care of Patients With Pain, 127

Theories of Pain, 127

Classification of Pain, 128

Nociceptive Pain, 128

Neuropathic Pain, 130

Perception of Pain, 130

Acute Versus Chronic Pain, 130

Acute Pain, 130

Chronic Pain, 130

Nursing Management, 131

Management of Pain, 138

Pharmacologic Approaches, 138

Nonpharmacologic Approaches, 141

Community Care, 144

Extended Care, 144

Home Care, 144

8 Care of Patients With Cancer, 148

The Impact of Cancer, 148

Pathophysiology of Cancer, 149

Normal Cells, 149

Cancer Cells, 150

Metastasis, 150

Genetic Factors, 151

Carcinogens, 152

Chemical Carcinogens, 152

Exogenous Hormones, 153

Cancer Promotion, 153

Physical Carcinogens, 153

Genetic Predisposition, 154

Contributing Factors, 154

Intrinsic Factors, 154

Dietary Factors, 154

Disease Factors: Diabetes Mellitus, 155

Classification of Tumors, 155

Cancer Staging, 155

Measures to Prevent Cancer, 155

Nutrition and Exercise for Cancer

Prevention, 155

Environment, 156

Identifying High-Risk People, 156

Detection of Cancer, 156

Diagnostic Tests, 160

Laboratory Tests, 160

Nursing Management, 161

Common Therapies, Problems, and Nursing

Care, 164

Surgery, 164

Radiation Therapy, 165

Chemotherapy, 168

Hormone Therapy, 172

Immunotherapy: Biologic Response

Modifiers, 172

Monoclonal Antibodies, 173

Targeted Therapies, 173

Bone Marrow and Stem Cell

Transplantation, 173

Common Problems Related to Cancer or Cancer

Treatment, 173

Anorexia and Weight Loss, 173

Mucositis and Stomatitis, 173

Chemotherapy-Induced Nausea and

Vomiting, 174

Diarrhea, 174

Constipation, 174

Chemotherapy-Induced Peripheral

Neuropathy, 174

Bone Marrow Suppression, 174

Cancer-Related Fatigue, 176

Alopecia, 176

Pain, 176

Fear and Ineffective Coping, 177

Oncologic Emergencies, 178

Caring for the Dying Cancer Patient, 178

Psychological Process of Death, 178

Palliative Care, 179

9 Chronic Illness and Rehabilitation, 183

Chronic Illness, 184

Preventing the Hazards of Decreased Mobility, 184

Chronic Illness and Rehabilitation Care, 185

- Rehabilitation, 194
 - Rehabilitation Programs*, 194
 - The Rehabilitation Team*, 195
- Nursing Management**, 196
- Home Care, 198
 - The LPN/LVN in Home Care*, 200
 - The Family Caregiver*, 200

UNIT III IMMUNE SYSTEM, 203

10 The Immune and Lymphatic Systems, 203

- Anatomy and Physiology of the Immune and Lymphatic Systems, 203
 - Organs and Structures*, 203
 - Functions of the Immune and Lymphatic Systems*, 204
 - Age in Relation to the Immune and Lymphatic Systems*, 204
- Protective Mechanisms of the Immune and Lymphatic Systems, 205
 - Inflammatory Response*, 206
 - Immune Response*, 207
- Immune and Lymphatic System Disorders, 211
 - Prevention of Immune and Lymphatic System Problems*, 212
- Nursing Management**, 214
- Common Problems Related to the Immune and Lymphatic Systems, 215
 - Fever*, 215
 - Nutrition*, 220
 - Immunosuppression*, 220

11 Care of Patients With Immune and Lymphatic Disorders, 223

- Immune Function and Dysfunction, 223
- Immune Deficiency Conditions, 224
- Therapeutic Immunosuppression, 224
 - Diagnostic Tests and Treatment of Immune Deficiencies*, 225
- Nursing Management**, 225
- Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome, 227
 - Pathophysiology*, 228
 - Transmission*, 228
 - Exposure Prophylaxis*, 229
 - Prevention Through Education*, 230
 - Signs and Symptoms*, 230
 - Diagnosis*, 230
 - Management of Human Immunodeficiency Virus Infection*, 230
 - Complications*, 231
- Nursing Management**, 233
- Human Immunodeficiency Virus Risk in Patients Older Than 50 Years, 236
- Community Education and Care, 236
 - Human Immunodeficiency Virus Confidentiality and Disclosure Issues*, 236

- Bloodborne Pathogen Exposure and Health Care Workers*, 236

- Autoimmune and Autoinflammatory Disorders, 236
 - Signs and Symptoms*, 237
 - Diagnosis*, 239
 - Treatment and Nursing Management*, 239
 - Systemic Lupus Erythematosus*, 239
- Disorders of the Lymphatic System, 243
 - Lymphoma*, 243
 - Lymphedema*, 246
 - Fibromyalgia*, 246
- Disorders of Inappropriate Immune Response, 247
 - Allergy and Hypersensitivity*, 247
- Nursing Management**, 252
 - Anaphylactic Reaction and Anaphylactic Shock*, 253

UNIT IV RESPIRATORY SYSTEM, 259

12 The Respiratory System, 259

- Overview of Anatomy and Physiology of the Respiratory System, 259
 - Functions of the Structures of the Upper Respiratory System*, 259
 - Functions of the Structures of the Lower Respiratory System*, 260
 - Control of Respiration*, 261
 - Effect of the Bones of the Thorax and the Respiratory Muscles on the Respiratory Process*, 261
 - Factors That Affect the Exchange of Oxygen and Carbon Dioxide*, 266
 - Effects of Aging on the Respiratory System*, 266
- Causes of Respiratory Disorders, 266
- Respiratory Disorders, 267
 - Prevention*, 267
 - Diagnostic Tests and Procedures*, 268
- Nursing Management**, 270
- Common Respiratory Patient Care Problems, 275
 - Airway Maintenance*, 275
 - Altered Breathing Patterns*, 276
 - Risk of Infection*, 278
 - Alterations in Nutrition and Hydration*, 278
 - Fatigue*, 278

13 Care of Patients With Disorders of the Upper Respiratory System, 281

- Disorders of the Nose and Sinuses, 281
 - Upper Respiratory Infections and Rhinitis*, 281
 - Sinusitis*, 284
 - Epistaxis*, 284
 - Pharyngitis*, 285
 - Tonsillitis*, 286
- Obstruction and Trauma, 286
 - Airway Obstruction and Respiratory Arrest*, 286
 - Obstructive Sleep Apnea*, 287

- Nasal Fracture*, 288
- Cancer of the Larynx*, 288
- Community Care, 295
 - Home Care*, 295
 - Extended Care*, 295

14 Care of Patients With Disorders of the Lower Respiratory System, 298

- Respiratory Infectious Diseases, 298
 - Acute Bronchitis*, 298
 - Influenza*, 299
 - Pneumonia*, 299
 - Atelectasis*, 302
 - Fungal Infections*, 302
 - Tuberculosis*, 302
 - Extrapulmonary Tuberculosis*, 306
 - Occupational Lung Disorders*, 306
- Restrictive Pulmonary Disorders, 306
 - Interstitial Pulmonary Disease*, 306
 - Pleuritis*, 306
 - Pleural Effusion*, 306
 - Empyema*, 307
- Obstructive Pulmonary Disorders, 307
 - Bronchiectasis*, 307
 - Cystic Fibrosis*, 307
 - Chronic Obstructive Pulmonary Disease*, 307
 - Emphysema*, 309
 - Chronic Bronchitis*, 309
 - Asthma*, 309
 - Complications of Chronic Obstructive Pulmonary Disease*, 315
 - Lung Cancer*, 316
- Pulmonary Vascular Disorders, 317
 - Pulmonary Embolism*, 317
 - Pulmonary Hypertension*, 318
 - Lung Transplantation*, 318
- Chest Injuries, 318
 - Pneumothorax and Hemothorax*, 318
- Lung Disorders, 319
 - Pulmonary Edema*, 319
 - Acute Respiratory Distress Syndrome*, 319
 - Respiratory Failure*, 320
- Common Therapeutic Measures, 320
 - Intrathoracic Surgery*, 320
 - Medication Administration*, 323
 - Humidification*, 326
 - Pulmonary Hygiene*, 327
 - Oxygen Therapy*, 328
 - Mechanical Ventilation*, 331
- Community Care, 333

UNIT V HEMATOLOGIC SYSTEM, 336

15 The Hematologic System, 336

- Overview of Anatomy and Physiology of the Hematologic System, 336
 - Functions of Blood*, 336

- Components of Blood*, 336
- Functions of the Plasma Proteins*, 336
- Production of Blood Cells*, 337
- Functions of the Red Blood Cells*, 337
- Functions of the White Blood Cells*, 337
- Platelets and Their Function*, 339
- Interaction of the Lymphatic System With the Vascular System*, 339
- Changes of the Hematologic System That Occur With Aging*, 339
- Causes of Hematologic Disorders, 340
- Prevention of Hematologic Disorders, 340
- Diagnostic Tests and Procedures, 341
- Nursing Management**, 344
- Common Problems Related to Disorders of the Hematologic System, 348
 - Excessive Bleeding*, 348
 - Excessive Clotting*, 349
 - Fatigue*, 349
 - Anorexia*, 349
 - Pain*, 349
 - Infection*, 349
 - Bone Marrow Failure*, 350

16 Care of Patients With Hematologic Disorders, 352

- Disorders of the Hematologic System, 352
 - Anemia*, 352
- Nursing Management**, 355
 - Aplastic Anemia*, 358
 - Sickle Cell Disease*, 358
 - Polycythemia Vera*, 360
 - Leukemia*, 361
- Coagulation Disorders, 366
 - Thrombocytopenia*, 366
 - Multiple Myeloma*, 366
 - Genetic Bleeding Disorders*, 367
 - Disseminated Intravascular Coagulation*, 369
- Therapies Frequently Used in the Management of Hematologic Disorders, 369
 - Transfusions*, 369
 - Leukapheresis*, 371
 - Biologic Response Modifiers: Colony-Stimulating Factor Therapy*, 371
 - Hematopoietic Cell Transplantation (HCT)*, 371
 - Oxygen Therapy*, 373
 - Iron Therapy*, 373
 - Vitamin B₁₂ Therapy*, 374
 - Splenectomy*, 374
- Community Care, 374

UNIT VI CARDIOVASCULAR SYSTEM, 378

17 The Cardiovascular System, 378

- Overview of Anatomy and Physiology of the Cardiovascular System, 378
 - The Structures of the Heart and Their Functions*, 378

Contraction of the Heart to Pump Blood, 379
The Cardiac Cycle, 379
The Ejection Fraction, 379
Blood Flow Throughout the Body, 380
Blood Pressure, 381
Cardiovascular System Changes Related to Aging, 382

Cardiovascular Disease, 382

Women and Heart Disease, 383
Causes of Cardiovascular Disorders, 383
Prevention of Cardiovascular Disease, 384
Diagnostic Tests and Procedures, 385

Nursing Management, 394

Common Problems of Patients With

Cardiovascular Disorders, 402
Fatigue and Dyspnea, 402
Edema, 402
Pain, 403
Altered Tissue Perfusion, 403
Impaired Tissue Integrity, 404

18 Care of Patients With Hypertension and Peripheral Vascular Disease, 407

Hypertension, 407

Etiology, 408
Pathophysiology, 408
Signs, Symptoms, and Diagnosis, 410
Treatment, 410
Complications, 414

Nursing Management, 414

Arteriosclerosis and Atherosclerosis, 416
Peripheral Vascular Disease, 416
Peripheral Arterial Disease (Arterial Insufficiency), 416

Nursing Management, 420

Aneurysm, 420

Nursing Management, 421

Carotid Artery Disease, 423
Thromboangiitis Obliterans (Buerger Disease), 423
Signs, Symptoms, Diagnosis, and Treatment, 423

Nursing Management, 423

Raynaud Disease and Raynaud Phenomenon, 423

Venous Disorders, 424

Superficial Thrombophlebitis, 424
Deep Vein Thrombosis, 425

Nursing Management, 426

Varicose Veins, 429
Chronic Venous Insufficiency, 430
Venous Stasis Ulcers, 431

Nursing Management, 432

Community Care, 433

19 Care of Patients With Cardiac Disorders, 436

Disorders of the Heart, 436
Heart Failure, 436

Nursing Management, 442

Cardiac Dysrhythmias, 445

Inflammatory and Infectious Diseases of the Heart, 454

Infective Endocarditis, 454

Pericarditis, 455

Nursing Management for Inflammatory and Infectious Heart Disease, 456

Cardiomyopathy, 456

Cardiac Valve Disorders, 456

Mitral Stenosis, 457

Mitral Regurgitation (Insufficiency), 457

Aortic Stenosis, 457

Aortic Regurgitation (Insufficiency), 457

Treatment of Valve Disorders, 458

Common Therapies and Their Nursing Implications, 459

Oxygen Therapy, 459

Pharmacologic Agents, 459

Dietary Control, 460

Community Care, 460

20 Care of Patients With Coronary Artery Disease and Cardiac Surgery, 463

Coronary Artery Disease, 463

Etiology, 463

Pathophysiology, 464

Signs and Symptoms, 464

Diagnosis, 464

Treatment, 464

Nursing Management, 464

Angina Pectoris, 466

Acute Coronary Syndrome and Myocardial Infarction, 471

Cardiogenic Shock, 475

Surgical and Nonsurgical Treatment Options, 476

Percutaneous Coronary Intervention, 476

Transmyocardial Laser Revascularization, 477

Cardiac Surgery, 478

Community Care, 482

UNIT VII NEUROLOGIC SYSTEM, 485

21 The Neurologic System, 485

Anatomy and Physiology of the Neurologic System, 485

Organization of the Nervous System, 485

Nerves and the Conduction of Impulses, 487

Control of the Body, 487

Interaction of the Peripheral Nervous System and the Central Nervous System, 488

Protection of the Central Nervous System, 489

Blood Flow to the Central Nervous System, 491

Intracranial Pressure (ICP), 491

Special Characteristics of the Nervous System, 491

Aging-Related Changes in the Nervous System, 491

Causative Factors Involved in Neurologic Disorders, 492

Prevention of Neurologic Disorders, 492

Evaluation of Neurologic Status, 493

Nursing Management, 493

Common Neurologic Patient Care

Problems, 506

Altered Breathing Pattern, 506

Altered Mobility, 507

Skin Integrity, 507

Altered Self-Care Ability, 507

Dysphagia, 508

Bowel and Bladder Function, 508

Pain, 509

Confusion, 509

Aphasia, 510

Altered Sexual Function, 511

Psychosocial Concerns, 511

Altered Family Functioning, 511

22 Care of Patients With Head and Spinal Cord Injuries, 514

Traumatic Brain (Head) Injuries, 514

Etiology, 514

Concussion, 514

Signs, Symptoms, and Diagnosis, 515

Treatment, 515

Skull Fracture, 515

Bleeding, 516

Signs and Symptoms, 516

Diagnosis, 517

Treatment, 518

Nursing Management, 518

Increased Intracranial Pressure, 518

Etiology and Pathophysiology, 518

Signs, Symptoms, and Diagnosis, 520

Treatment, 522

Nursing Management, 523

Injuries of the Spine and Spinal Cord, 524

Etiology, 524

Pathophysiology, 524

Signs, Symptoms, and Diagnosis, 524

Treatment, 525

Nursing Management, 531

Back Pain and Herniated Disk (Bulged, Slipped, or Ruptured Disk), 532

Etiology, 532

Pathophysiology, 532

Signs, Symptoms, and Diagnosis, 533

Treatment, 533

Nursing Management, 534

23 Care of Patients With Brain Disorders, 538

Seizure Disorders and Epilepsy, 538

Etiology, 538

Pathophysiology, 539

Signs and Symptoms, 539

Diagnosis, 539

Treatment, 539

Nursing Management, 541

Transient Ischemic Attack, 542

Cerebrovascular Accident (Stroke, Brain Attack), 543

Etiology, 543

Pathophysiology, 543

Signs and Symptoms, 546

Diagnosis, 547

Treatment, 548

Complications, 549

Nursing Management, 550

Brain Tumor, 555

Etiology and Pathophysiology, 555

Signs, Symptoms, and Diagnosis, 556

Treatment, 556

Nursing Management, 557

Complications, 557

Infectious and Inflammatory Disorders of the Nervous System, 557

Bacterial Meningitis, 557

Viral Meningitis, 558

Nursing Management, 559

Encephalitis, 559

Brain Abscess, 560

Headaches, 560

Migraine Headaches, 561

Cluster Headaches, 562

Tension Headaches, 562

Cranial Nerve Disorders, 562

Trigeminal Neuralgia (Tic Douloureux), 562

Nursing Management, 563

Bell Palsy, 563

24 Care of Patients With Peripheral Nerve and Degenerative Neurologic Disorders, 567

Parkinson Disease, 567

Etiology, 567

Pathophysiology, 567

Signs and Symptoms, 568

Diagnosis, 568

Treatment, 569

Complications, 569

Nursing Management, 569

Multiple Sclerosis, 573

Etiology, 573

Pathophysiology, 574

Signs and Symptoms, 574

Diagnosis, 575

Treatment, 575

Nursing Management, 576

Alzheimer Disease, 576

Amyotrophic Lateral Sclerosis, 576

Etiology and Pathophysiology, 576

Signs and Symptoms, 576

Diagnosis and Treatment, 577

Nursing Management, 577

Guillain-Barré Syndrome, 577

Etiology and Pathophysiology, 577

Signs and Symptoms, 577

Diagnosis, 577

Treatment, 578

- Nursing Management, 578**
- Poliomyelitis and Postpolio Syndrome, 579
- Huntington Disease, 579
- Myasthenia Gravis, 579
 - Etiology and Pathophysiology, 579*
 - Signs and Symptoms, 579*
 - Diagnosis, 580*
 - Treatment, 580*
- Nursing Management, 580**
- Restless Leg Syndrome, 581
- Community Care, 582

UNIT VIII SENSORY SYSTEM, 585

25 The Sensory System: Eye, 585

- Anatomy and Physiology of the Eye, 585
 - Structures of the Eye, 585*
 - Functions of the Eye Structures, 586*
 - Aging-Related Eye Changes, 587*
- The Eye, 588
 - Eye Disorders, 588*
 - Basic Eye Care, 588*
 - Prevention of Eye Injury, 589*
 - Prevention of Vision Loss, 589*
 - Diagnostic Tests and Examinations, 590*
- Nursing Management, 590**
- Common Disorders of the Eye, 597
 - Errors of Refraction, 597*
 - Uveitis, 598*
 - Dry Eye, 598*
 - Corneal Disorders, 599*
 - Eye Trauma, 600*
 - Cataract, 601*
 - Glaucoma, 602*
 - Open-Angle Glaucoma, 604*
 - Angle-Closure (Narrow-Angle) Glaucoma, 608*
 - Retinal Detachment, 609*
 - Retinopathy, 610*
 - Macular Degeneration, 611*
- Nursing Care of Patients Having Eye Surgery, 613
 - Preoperative Care, 613*
 - Postoperative Care, 614*
- Community Care, 614

26 The Sensory System: Ear, 618

- Anatomy and Physiology of the Ear, 618
 - Structures of the Ear, 618*
 - Functions of the Ear Structures, 618*
 - Age-Related Changes in the Ear, 619*
- The Ear, 619
 - Hearing Loss, 621*
- Nursing Management, 623**
- Common Problems of Patients With Ear Disorders, 629
 - Hearing Impairment, 629*
 - Rehabilitation for Hearing Loss, 630*

- Common Disorders of the Ear, 632
 - External Otitis, 632*
 - Impacted Cerumen and Foreign Bodies, 632*
 - Otitis Media, 633*
 - Labyrinthitis, 634*
 - Ménière Disease (Ménière Syndrome), 634*
 - Acoustic Neuroma (Vestibular Schwannoma), 635*
 - Otosclerosis and Hearing Loss, 635*
- Cochlear Implant, 636
- Nursing Care of Patients Having Ear Surgery, 637
 - Preoperative Care, 638*
 - Postoperative Care, 638*
- Community Care, 638

UNIT IX GASTROINTESTINAL SYSTEM, 641

27 The Gastrointestinal System, 641

- Anatomy and Physiology of the Gastrointestinal System, 641
 - Organs and Structures of the Gastrointestinal System, 641*
 - Functions of the Gastrointestinal System, 642*
 - Control of the Gastrointestinal System, 643*
 - Effects of Aging on the Gastrointestinal System, 643*
 - Structures and Locations of the Accessory Organs, 643*
 - Functions of the Gallbladder, Liver, and Pancreas, 643*
 - Effects of Aging on the Accessory Organs of Digestion, 644*
- The Gastrointestinal System, 644
 - Gastrointestinal System Disorders, 644*
- Nursing Management, 652**
- Common Problems Related to the Gastrointestinal System, 654*

28 Care of Patients With Disorders of the Upper Gastrointestinal System, 661

- Eating Disorders, 661
 - Anorexia Nervosa, 661*
 - Bulimia Nervosa, 661*
 - Obesity, 661*
- Nursing Management of Obesity, 664**
- Upper Gastrointestinal Disorders, 664
 - Stomatitis, 664*
 - Dysphagia, 665*
 - Cancer of the Oral Cavity, 665*
 - Cancer of the Esophagus, 666*
 - Hiatus (Hiatal) Hernia (Diaphragmatic Hernia), 667*
 - Gastroesophageal Reflux Disease, 667*
 - Gastroenteritis, 671*
 - Gastritis, 671*
 - Peptic Ulcer, 672*
- Nursing Management, 675**
- Gastric Cancer, 678*

Common Therapies for Disorders of the
Gastrointestinal System, 679
Gastrointestinal Decompression, 679
Enteral Nutrition, 680
Peripheral Parenteral Nutrition, 682
Total Parenteral Nutrition, 682

29 Care of Patients With Disorders of the Lower Gastrointestinal System, 685

Disorders of the Abdomen and Bowel, 685
Diarrhea or Constipation, 685
Irritable Bowel Syndrome, 686
Diverticula, 689
Intestinal Obstruction, 690
Abdominal and Inguinal Hernia, 691
Bowel Ischemia, 692
Inflammatory Bowel Disease: Ulcerative Colitis and Crohn Disease, 693

Nursing Management, 695

Appendicitis, 695
Peritonitis, 696
Malabsorption, 696
Cancer of the Colon, 697

Ostomy Surgery and Care, 699

Colostomy, 699
Ileostomy, 703
Preoperative Nursing Care, 704

Nursing Management, 704

Anorectal Disorders, 708
Hemorrhoids, 708
Pilonidal Sinus (Pilonidal Cyst), 709
Anorectal Abscess and Fistula, 709

Community Care, 710

30 Care of Patients With Disorders of the Gallbladder, Liver, and Pancreas, 713

Disorders of the Gallbladder, 713
Cholelithiasis and Cholecystitis, 713

Disorders of the Liver, 717
Hepatitis, 717

Nursing Management, 722

Cirrhosis, 725

Nursing Management, 727

Liver Transplantation, 728
Cancer of the Liver, 731

Disorders of the Pancreas, 732

Acute Pancreatitis, 732
Chronic Pancreatitis, 733
Cancer of the Pancreas, 734

Community Care, 736

UNIT X MUSCULOSKELETAL SYSTEM, 739

31 The Musculoskeletal System, 739

Anatomy and Physiology of the Musculoskeletal System, 739
Structures of the Musculoskeletal System, 739

Functions of the Bones, 740
Functions of the Muscles, 741
Aging-Related Changes in the Musculoskeletal System, 741

Musculoskeletal Disorders, 741

Causes, 741
Prevention, 741

Nursing Management, 742

32 Care of Patients With Musculoskeletal and Connective Tissue Disorders, 756

Connective Tissue Disorders, 756

Sprain, 756
Strain, 757
Dislocation, 757
Rotator Cuff Tear, 757
Anterior Cruciate Ligament Injury, 757
Meniscal Injury, 758
Achilles Tendon Rupture, 758
Bursitis, 758
Bunion (Hallux Valgus), 758
Carpal Tunnel Syndrome, 758
Fractures, 759

Nursing Management, 763

Inflammatory Disorders of the Musculoskeletal System, 766

Lyme Disease, 766
Osteoarthritis, 766
Rheumatoid Arthritis, 768

Nursing Management, 772

Gout, 776
Osteoporosis, 777

Nursing Management, 779

Paget Disease, 779
Bone Tumors, 779
Amputation, 780

Community Care, 782

UNIT XI URINARY SYSTEM, 786

33 The Urinary System, 786

Anatomy and Physiology of the Urologic System, 786

Structures of the Urologic System and How They Interrelate, 786

Functions of the Kidneys, 787
Regulation of Fluid Balance, 787

Functions of the Ureters, Bladder, and Urethra, 788

Aging-Related Changes, 788

The Urologic System, 788

Disorders of the Urologic System, 788

Nursing Management, 790

Common Urologic Problems, 799

Urinary Incontinence, 799
Urinary Retention, 803

34 Care of Patients With Disorders of the Urinary System, 807

- Inflammatory Disorders of the Urinary Tract, 807
 - Cystitis*, 807
 - Urethritis*, 808
 - Pyelonephritis*, 810
 - Acute Glomerulonephritis*, 811
 - Chronic Glomerulonephritis*, 812
 - Nephrotic Syndrome (Nephrosis)*, 812
- Obstructions of the Urinary Tract, 812
 - Hydronephrosis*, 812
 - Renal Stenosis*, 813
 - Renal Stones*, 814
- Urologic System Trauma, 816
 - Trauma to Kidneys and Ureters*, 816
 - Trauma to the Bladder*, 816
- Urologic System Cancers, 817
 - Cancer of the Bladder*, 817
 - Cancer of the Kidney*, 820
- Renal Failure, 820
 - Acute Kidney Injury (Acute Renal Failure)*, 820
- Nursing Management**, 823
 - Chronic Renal Failure*, 823
- Nursing Management**, 830
- Community Care, 832

UNIT XII ENDOCRINE SYSTEM, 839

35 The Endocrine System, 839

- Anatomy and Physiology of the Endocrine System, 839
 - Organs and Structures of the Endocrine System*, 839
 - Functions of the Endocrine System*, 840
 - Effects of the Pituitary Hormones*, 840
 - Effects of the Thyroid Hormones*, 841
 - Functions of the Parathyroid Glands*, 843
 - Functions of the Adrenal Gland Hormones*, 843
 - Hormonal Function of the Pancreas*, 844
 - Effects of Aging on the Endocrine System*, 844
- The Endocrine System, 844
 - Endocrine System Disorders*, 846
- Nursing Management**, 846
- Community Care, 853

36 Care of Patients With Pituitary, Thyroid, Parathyroid, and Adrenal Disorders, 856

- Disorders of the Pituitary Gland, 856
 - Pituitary Tumors*, 856
 - Hyperfunction of the Pituitary Gland*, 857
 - Hypofunction of the Pituitary Gland*, 858
 - Diabetes Insipidus*, 859
 - Syndrome of Inappropriate Antidiuretic Hormone*, 860
- Disorders of the Thyroid Gland, 862
 - Goiter*, 862
 - Hyperthyroidism*, 863

- Thyroidectomy*, 864
- Hypothyroidism*, 868
- Myxedema Coma*, 869
- Thyroiditis*, 869
- Thyroid Cancer*, 869

- Disorders of the Parathyroid Glands, 870
 - Hypoparathyroidism*, 870
 - Hyperparathyroidism*, 870
- Disorders of the Adrenal Glands, 871
 - Pheochromocytoma*, 871
 - Adrenocortical Insufficiency (Addison Disease)*, 872
 - Acute Adrenal Insufficiency or Adrenal Crisis*, 872
 - Excess Adrenocortical Hormone (Cushing Syndrome)*, 876
- Community Care, 877

37 Care of Patients With Diabetes and Hypoglycemia, 880

- Diabetes Mellitus and Hypoglycemia, 880
 - Diabetes Mellitus*, 880
- Nursing Management**, 894
 - Hypoglycemia (Nondiabetic)*, 900
- Community Care, 900

UNIT XIII REPRODUCTIVE SYSTEM, 904

38 The Reproductive System, 904

- The Female Reproductive System, 904
 - Anatomy and Physiology of the Female Reproductive System, 904
 - Primary External Structures*, 904
 - Primary Internal Structures*, 905
 - Accessory Organs*, 905
 - Phases of the Female Reproductive Cycle During the Childbearing Years*, 905
 - Sexual Development in the Fetus*, 906
 - Sexual Maturation*, 906
 - Menopause*, 906
 - Women's Health Care, 906
 - Normal Menstruation*, 907
 - The Normal Breast*, 907
 - Contraception*, 907
 - Menopause*, 912
 - Health Screening and Assessment, 912
 - Breast Self-Examination*, 913
 - Vulvar Self-Examination*, 913
 - Diagnostic Tests*, 913
 - Nursing Management**, 916
- Anatomy and Physiology of the Male Reproductive System, 916
 - Structures*, 916
 - Functions of the Organs of the Male Reproductive System*, 918
 - Control of Sperm Production*, 918
 - Age-Related Changes*, 918

The Male Reproductive System, 918

Fertility, 918

Contraception, 919

Nursing Management, 919

Care of Patients Who Identify as

LGBTQIA+, 920

39 Care of Women With Reproductive Disorders, 924

Menstrual Dysfunction, 924

Premenstrual Syndrome and Premenstrual

Dysphoric Disorder, 924

Dysmenorrhea, 925

Infertility, 925

Assisted Reproduction, 926

Nursing Management, 927

Menopause, 927

Nursing Management, 927

Implementation, 928

Disorders of the Female Reproductive Tract, 928

Pelvic Relaxation Syndrome (Cystocele,

Rectocele, Enterocele, and Uterine

Prolapse), 928

Polycystic Ovarian Syndrome, 929

Dysfunctional Uterine Bleeding, 930

Abnormal Uterine Bleeding, 931

Leiomyoma, 931

Endometriosis, 932

Inflammations of the Lower Genital Tract, 935

Toxic Shock Syndrome, 936

Cancer of the Reproductive Tract, 937

Vulvar Cancer, 937

Cancer of the Cervix, 937

Cancer of the Uterus, 937

Cancer of the Ovary, 937

Disorders of the Breast, 937

Benign Disorders of the Breast, 938

Breast Cancer, 938

Home Care, 945

Community Care, 945

40 Care of Men With Reproductive Disorders, 948

Disorders of the Male Reproductive System, 948

Erectile Dysfunction, 948

Ejaculation Disorders, 949

Infertility, 950

Hydrocele, 951

Varicocele, 951

Testicular Torsion, 951

Priapism, 952

Peyronie Disease, 952

Benign Prostatic Hyperplasia, 952

Inflammations and Infections of the Male

Reproductive Tract, 957

Cancer of the Male Reproductive Tract, 957

Community Care, 959

41 Care of Patients With Sexually Transmitted Infections, 963

Common Infections of the Female Reproductive Tract, 963

Pelvic Inflammatory Disease, 963

Candidiasis, 964

Bacterial Vaginosis, 964

Risk Factors for Transmission of Sexually Transmitted Infections, 964

Prevention of Human Papillomavirus, 965

Lesions of Sexually Transmitted Infections, 965

Reporting Sexually Transmitted Infections, 965

Transmission of Sexually Transmitted Infections, 965

Common Diagnostic Tests, 965

Nursing Management, 972

Community Care, 975

UNIT XIV INTEGUMENTARY SYSTEM, 977

42 The Integumentary System, 977

Anatomy and Physiology of the Integumentary System, 977

Structure of the Skin, Hair, and Nails, 977

Functions of the Skin and Its Structures, 978

Aging-Related Changes in the Skin and Its

Structures, 978

The Integumentary System, 979

Disorders of the Integumentary System, 979

Integrity of Skin, 980

Nursing Management, 983

43 Care of Patients With Integumentary Disorders and Burns, 991

Inflammatory Infections, 991

Dermatitis, 992

Acne, 992

Psoriasis, 994

Stevens-Johnson Syndrome, 995

Bacterial Infections, 995

Etiology, Pathophysiology, Signs, and

Symptoms, 995

Diagnosis, Treatment, and Nursing

Management, 995

Viral Infections, 995

Herpes Simplex, 995

Herpes Zoster, 996

Fungal Infections, 997

Tinea Pedis, 998

Parasitic Infections, 999

Pediculosis and Scabies, 999

Noninfectious Disorders of Skin, 1001

Skin Cancer, 1001

Pressure Injury (Ulcers), 1003

Burns, 1008

Nursing Management, 1016

Community Care, 1020

UNIT XV EMERGENCY AND DISASTER MANAGEMENT, 1024

44 Care of Patients in Disasters or Bioterrorism Attack, 1024

- Disaster Preparedness and Response, 1024
 - Hospital Preparedness, 1025*
 - Triage, 1026*
 - Community Preparedness, 1031*
 - Psychological Responses to Disaster, 1032*
- Preparing for Chemical, Nuclear, or Biological Disasters, 1034
 - Chemical Disaster, 1034*
 - Nuclear Disaster, 1036*
 - Biologic Disaster, 1037*
- Active Shooter, 1044
- Debriefing, 1044

45 Care of Patients With Emergent Conditions, Trauma, and Shock, 1047

- Prevention of Accidents, 1047
 - Home Safety, 1047*
 - Highway Safety, 1047*
 - Water Safety, 1048*
- First Aid and Good Samaritan Laws, 1049
- Psychological and Social Emergencies, 1049
 - The Combative Patient, 1049*
 - Domestic and Intimate Partner Violence, 1049*
- Emergency Care, 1051
 - Triage: Initial (or Primary) Survey, 1052*
 - Airway, 1052*
 - Breathing, 1052*
 - Control of Bleeding, 1053*
 - Neck and Spine Injuries, 1054*
 - Chest Trauma, 1054*
 - Cardiac Trauma, 1055*
 - Abdominal Trauma, 1056*
 - Multiple Trauma, 1056*
- Metabolic Emergencies, 1056
 - Insulin Reaction or Severe Hypoglycemia, 1056*
 - Other Metabolic Emergencies, 1056*
- Injuries Caused by Extreme Heat and Cold, 1056
 - Heat Illness, 1056*
 - Hypothermia, 1057*
 - Frostbite, 1058*
- Poisoning, 1058
 - Accidental Poisoning, 1058*
 - Inhaled Poisons, 1060*
- Bites and Stings, 1060
 - Human Bites, 1060*
 - Animal Bites, 1060*
 - Snakebite, 1060*
 - Bug Bites and Stings, 1061*
- Electrical Injuries and Burns, 1062
 - Chemical Injury, 1062*
- Choking Emergencies, 1062
- Cardiopulmonary Resuscitation, 1063
- Shock, 1063

- Signs and Symptoms, 1064*
- Hypovolemic Shock, 1064*
- Cardiogenic Shock, 1066*
- Obstructive Shock, 1067*
- Distributive Shock (Maldistribution of Fluids), 1068*
- Anaphylactic Shock, 1068*
- Neurogenic Shock, 1068*
- Systemic Inflammatory Response Syndrome, Sepsis, and Septic Shock, 1068*
- Nursing Management, 1070**

UNIT XVI MENTAL HEALTH NURSING OF THE ADULT, 1074

46 Care of Patients With Cognitive Function Disorders, 1074

- Overview of Cognitive Disorders, 1074
 - Delirium, 1074*
 - Substance-Induced Delirium, 1075*
 - Dementia, 1075*
 - Alzheimer Disease, 1076*
- Nursing Management, 1077**
- Nursing Management, 1081**
- Community Care, 1086

47 Care of Patients With Anxiety, Mood, and Eating Disorders, 1089

- Anxiety and Related Disorders, 1089
 - Generalized Anxiety Disorder, 1090*
 - Phobias, 1090*
 - Obsessive-Compulsive Disorder, 1091*
 - Post-Traumatic Stress Disorder, 1091*
 - Diagnosis of Anxiety Disorders, 1091*
 - Treatment of Anxiety Disorders, 1091*
- Nursing Management of Anxiety Disorders, 1092**
- Depressive Disorders, 1094
 - Major Depressive Disorder, 1094*
- Nursing Management of Depressive Disorders, 1097**
 - Bipolar Disorder, 1098*
- Nursing Management of Bipolar Disorder, 1099**
- Patients With Suicidal Ideation, 1102
- Nursing Management of Patients With Suicidal Ideation, 1102**
- Eating Disorders, 1103
 - Anorexia Nervosa, 1103*
 - Bulimia Nervosa, 1103*
 - Treatment of Eating Disorders, 1104*
- Nursing Management of Patients With an Eating Disorder, 1104**
- Community Care, 1105

48 Care of Patients With Substance-Related and Addictive Disorders, 1108

- Substance Use Disorder and Alcohol Use Disorder, 1108

Signs and Symptoms, 1109
Effects of Substance Use on Family and Friends, 1109

* **Disorders Associated With Substance-Related and Addictive Disorders, 1111**

Alcohol Use Disorder, 1111

Alcohol Intoxication and Alcohol

Withdrawal, 1111

Use of Other Central Nervous System

Depressants, 1114

Opiate Use, 1115

Stimulant Use, 1116

Nicotine Use, 1117

Cannabis Use, 1118

Hallucinogen and Inhalant Use, 1118

Nursing Management, 1118

Community Care, 1123

49 Care of Patients With Thought and Personality Disorders, 1127

Overview of Thought Disorders, 1127

Schizophrenia, 1127

Nursing Management, 1131

Overview of Personality Disorders, 1134

Borderline Personality Disorder, 1138

Nursing Management, 1139

Community Care, 1140

APPENDIX

A Most Common Laboratory Test Values, 1143

B Standard Precautions, 1152

C Standard Steps for All Nursing Procedures, 1154

References, 1156

Bibliography, 1171

Glossary, 1178

Index, 1201