Contents

VOLUME I

Chapter 1: Introduction to Medical-Surgical Nursing 1

- Evolution of Medicine and Surgery *1*
- History of Surgery *2*
- History of Medical-Surgical Nursing *3*
- Supernatural Theories of Disease *5*
- The Concept of Illness *7*
- Nursing Process: Overview *8*

Chapter 2: Nursing Assessment 18

- Health Assessment *18*
- Health History *19*
- Physical Examination *19*
- Nutritional Assessment *20*

Chapter 3: Pathophysiologic Mechanism of Disease 24

- Stress and Adaptation *24*
- Coping with Stress *26*
- Nursing Interventions *27*
- Cellular Adaptation and Injury *28*
- Defense Mechanisms (Physiologic) of the Body *28*
- Inflammation *28*
- Nutritional Considerations *29*

Chapter 4: Altered Immune Response 32

- Overview of Immune System *32*
- Immunity *33*

Allergy Disorders *36*

- Allergic Rhinitis *36*
- Dermatitis *36*
- Atopic Dermatitis (Eczema) *36*
- Hypersensitivity *36*
- Food Allergy *41*
- Adverse Drug Reaction *42*
- Latex Allergy *42*

Autoimmune Disease *43*

- Graft versus Host Disease *43*

Chapter 5: Fluid and Electrolyte Balance and Imbalance 46

- Body Fluids *46*
- Water Balance *47*
- Disorders of Water Balance *48*
- Electrolyte Balance *49*
- Electrolyte Imbalances *51*
- Acid-base Imbalance *57*

Chapter 6: Operation Theater Technique 64

- Principles of Operating Room Management *64*
- Scrubbing *67*
- Gowning and Gloving *70*
- Positioning the Patient for Surgery *70*
- Draping of the Surgical Patient *72*
- Surgical Sutures and Needles *72*
- Surgical Instruments and Uses *74*
- Cleaning of OT *89*
- Packing and Sterilization *91*
- Role of the Nurse in the Operation Theater *92*

Chapter 7: Management of Patients Undergoing Surgery 95

- Major Types of Surgical Procedures *95*
- Physiologic Assessment *96*
- Psychological Assessment *97*
- Diagnostic Tests *97*
- Legal Preparation *98*
- Preoperative Nursing Dignosis and Interventions *98*
- Intraoperative Care *100*
- Postoperative Care *103*

Chapter 8: Nursing Management of Patients with Impaired Respiratory Function and Gaseous Exchange 110

- Review of Anatomy and Physiology *110*
- Assessment of Respiratory Function *115*
- Care of Patients in Respiratory Intensive Care Unit and Ventilator Care *122*

Classification of Respiratory Disorders *125*

- Management of Patients with Upper Respiratory Disorders *125*
- Other Viral Infections *128*
- Management of Patients with Chest and Lower Respiratory Tract Disorders *129*
- Respiratory Care Modalities *170*
- Alternate Therapies for Respiratory Disorders *177*

Chapter 9: Nursing Management of Patients with Gastrointestinal Disorders 180

- Review of Anatomy and Physiology *180*
- Assessment of Gastrointestinal System *180*
- Diagnostic Studies of Gastrointestinal System *184*
- Management of Upper Gastrointestinal Disorders *187*
- Stomach *196*
- Management of Lower Gastrointestinal Disorders *206*
- Anorectal Problems *232*
- Complementary and Alternative Medicine for Gastrointestinal Disorders *237*

Chapter 10: Nursing Management of Patients with Metabolic and Endocrinal Disorders 239

- Review of Anatomy and Physiology of Liver *239*
- Assessment of Hepatic and Biliary Functions *239*

- Management of Patients with Hepatic Disorders *242*
- Management of Patients with Biliary Disorders *258*
- Management of Patients with Exocrine Pancreatic Disorders *263*
- Management of Endocrinal Disorders *268*

Chapter 11: Nursing Management of Patients with Renal and Urinary Disorders 298

- Review of Anatomy and Physiology of Urinary System *298*
- Assessment of Urinary Function *301*
- Management of Patients with Renal and Urinary Disorders *305*
- Disorders of Male Genitourinary System *347*

Chapter 12: Nursing Management of Patients with Neurological Disorders 359

- Review of Anatomy and Physiology *359*
- Assessment of the Neurologic System *362*
- Management of Patients with Neurologic Dysfunction *366*
- Management of Patients with Neurologic Disorders *373*
- Alternative Therapies *405*

Chapter 13: Nursing Management of Patients with Connective Tissue and Collagen Disorders 408

- Assessment of Patients with Connective Tissue Disorders *408*
- Management of Patients with Disorders of Connective Tissue and Collagen Disorders *409*
- Alternative Therapy with Diet, Vitamins, Herbs, Supplements and Natural Treatment *421*

Chapter 14: Nursing Management of the Elderly 423

- Demographic Context *423*
- Health Care Aspects *423*
- Assessment of the Elderly *424*
- Aging Process *424*
- Helping and Caring for the Elderly in Promoting Wellness and Self-Care *428*
- Conditions Associated with Aging *429*
- Home and Institutional Care *437*
- Legal Aspects *438*

Index *I-1*

VOLUME II

Chapter 15: Oncology Nursing 441

- Structure and Characteristics of Normal and Cancer Cells *441*
- Nursing Assessment *442*
- Prevention, Screening, Early Detection and Warning Signs of Cancer *443*

Modalities of Treatment *447*

- Chemotherapy *447*
- Immunotherapy *455*
- Radiotherapy *456*
- Stem Cell or Bone Marrow Transplant *457*
- Gene Therapy *458*
- Stoma Therapy *459*
- Oncologic Emergencies *461*
- Palliative Care *465*
- Hospice *466*
- Psychosocial Aspects of Care *467*
- Rehabilitation of Cancer Patients *468*
- Complementary and Alternative Therapies for Cancer *469*

Chapter 16: Nursing Management of Patients with Disorders of Breast 474

- Review of Anatomy and Physiology *474*
- Breast Assessment *475*
- Classification of Breast Disorders *476*

Chapter 17: Nursing Management of Patients with Diseases and Disorders of Integumentary System 487

- Structure and Functions of Skin *487*
- Nursing Assessment of the Integumentary System *487*

Nursing Management of Disorders of Skin and its Appendages *488*

- Skin Infections and Infestations *488*
- Acne Vulgaris (Acne) *490*
- Allergies and Eczema *491*
- Urticaria *491*
- Psoriasis *491*
- Malignant Melanoma *493*
- Alopecia *493*
- Common Bacterial Skin Infections *494*
- Viral Infections *495*
- Fungal Infections of the Skin *496*
- Scabies *498*
- Pediculosis *498*
- Pemphigus *499*
- Stevens-Johnson Syndrome (SJS) *499*
- Skin Neoplasms *499*
- Kaposi Sarcoma *500*
- Dermatological Therapies *500*

Burns and its Management *501*

- Burns *501*
- Plastic Surgery *505*

Chapter 18: Ophthalmology and Ophthalmic Nursing 511

- Review of Anatomy and Physiology of Eye *511*
- Ophthalmic Assessment *513*
- Infections and Inflammations *514*
- Degenerative Conditions of Eyes *525*
- Miscellaneous Conditions of Eyes *533*
- National Blindness Control Program *539*
- Current Trends in Managing Ophthalmic Conditions *540*
- Eye Banking in India *541*
- Ocular Emergencies *541*

Chapter 19: Nursing Management of Patients with Disorders and Diseases of Ear, Nose and Throat 545

Ear *545*

- Review of Anatomy and Physiology of Ear *545*
- Assessment of Functions of Ear *546*

- Hearing Loss and Rehabilitation *547*
- Disorders of External Ear *549*
- Disorders of Middle Ear *552*
- Disorders of Inner Ear *556*
- Tumors of Ear *558*

Nose *559*
- Review of Anatomy and Physiology of Nose *559*
- Assessment of Functions of Nose *560*
- Infections and Inflammations of Nose *561*
- Diseases of External Nose *564*
- Diseases of Nasal Vestibule *564*
- Nasal Septum and its Diseases *565*
- Nasal Polyps *567*
- Foreign Body of the Nose *568*
- Epistaxis *568*

Throat *570*
- Assessment of the Function of Throat *570*
- Tonsillectomy *572*
- Adenoidectomy *574*
- Malignant Disorders of the Throat *574*

Chapter 20: Management of Patients with Cardiovascular, Circulatory and Hematological Disorders 579

Cardiovascular System *580*
- Review of Anatomy and Physiology *580*
- Assessment of Cardiovascular System *582*
- Diagnostic Tests for Cardiovascular System *583*

Disorders of Cardiovascular System *586*
- Coronary Artery Disease *586*
- Hypertension *598*
- Heart Failure *602*
- Dysrhythmias *612*
- Cardiac Valvular Disorders *624*
- Cardiac Surgery *632*
- Inflammatory and Infectious Cardiac Disorders *637*
- Peripheral Vascular Disorders *641*

Hematologic and Lymphatic Systems *646*
- Review of Anatomy and Physiology *646*
- Assessment of Hematologic and Lymphatic Systems *648*
- Diagnostic Tests for the Hematologic and Lymphatic Systems *648*

Hematologic Disorders *650*
- Disorders of Red Blood Cells *650*
- Idiopathic Thrombocytopenic Purpura *657*
- Hemorrhagic Disorders *658*
- Disorders of White Blood Cells *660*
- Multiple Myeloma *663*
- Lymphatic Disorders *665*
- Splenic Disorders *669*

Chapter 21: Nursing Management of Patients with Communicable Diseases 671
- Infection Process Cycle *671*
- Mode of Transmission *671*
- Classification *672*

Management of Various Infectious Diseases Caused By Virus *672*
- Smallpox (Variola) *672*
- Chickenpox (Varicella) *672*
- Measles *673*
- Mumps (Infective Parotitis) *675*
- Rubella *676*
- Ebola Virus Disease *677*
- Zika Virus Disease *678*
- Influenza (Flu) *678*
- Swine Flu *679*
- Poliomyelitis *680*
- Acquired Immunodeficiency Syndrome *681*
- Dengue Fever *683*
- Japanese Encephalitis *684*
- Chikungunya Fever *685*
- Rabies *686*

Management of Various Infectious Diseases Caused by Bacteria *687*
- Diphtheria *687*
- Whooping Cough (Pertussis) *689*
- Tetanus *690*
- Typhoid Fever *691*
- Acute Diarrheal Diseases *693*
- Cholera *694*
- Amoebiasis *695*
- Tuberculosis *696*
- Plague *698*
- Leptospirosis *700*
- Leprosy *701*

Management of Vector-Borne Diseases *702*
- Malaria *702*
- Filariasis *703*
- Yellow Fever *704*
- Kala-Azar *706*
- Ascariasis or Roundworm *706*
- Hookworm Infection *707*

Chapter 22: Nursing Management of Patients with Sexually Transmitted Diseases 709
- Assessment *709*

Management of Sexually Transmitted Diseases *710*
- Gonorrhea *710*
- Syphilis *710*
- Chancroid *711*
- Lymphogranuloma Venereum *712*
- Granuloma Inguinale *712*
- Genital Herpes *712*
- Nursing Management of Patients with STD *713*
- HIV/AIDS *714*

Chapter 23: Nursing Management of Patients with Musculoskeletal Disorders and Diseases 724
- Review of Anatomy and Physiology *724*
- Assessment of Musculoskeletal System *727*

Infections and Inflammations *729*
- Septic Arthritis *729*
- Gonococcal Arthritis *731*
- Osteomyelitis *731*
- Tuberculosis of Spine *732*
- Low Back Pain *732*

Degenerative Conditions of Joints and Spine *733*
- Intervertebral Disk Prolapse or Herniated Disk *733*

Injuries ***739***
- Strains and Sprains *739*
- Dislocations *740*
- Fractures *741*
- Tumors *756*
- Spine Injury *757*
- Care of Patients with Traction *760*
- Nursing Management of Patients with Plaster Cast *764*
- Preparation for Bone Surgery/Orthopedic Surgery *765*
- Use of Orthopedic Assist Devices *769*
- Physical Therapies *770*

Chapter 24: Emergency Management **774**
- Emergency Nursing *774*
- Triage *775*
- Airway Obstruction *775*
- Hemorrhage *776*
- Shock *777*
- Anaphylactic Reaction *778*
- Allergies *778*
- Trauma *779*
- Crush Injuries *780*
- Poisoning *781*
- Ingested (Swallowed Poisons) *782*
- Food Poisoning *782*
- Inhaled Poisoning *783*
- Injected Poisoning *784*
- Snake Bite *785*
- Lizard Bites *786*
- Spider Bites *786*
- Chemical Burns *786*
- Heat Stroke *787*
- Frostbites *787*
- Asphyxia *788*

Chapter 25: Emergency and Disaster Nursing **790**
- Disaster Management *790*
- Natural Calamities *791*
- Manmade Disasters *792*
- Role of Nurses in Disaster *793*
- Disaster Management in India *793*

Index *I-1*