B.Sc. Nursing Syllabus

Semester III

Subjects

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Curriculum sources

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Applied Microbiology and Infection Control including Safety

40 hours theory | 40 hours lab / experiential learning | 3 credits

Section a: applied microbiology

Course description

This course is designed to enable students to acquire understanding of fundamentals of Microbiology, compare and contrast different microbes and comprehend the means of transmission and control of spread by various microorganisms. It also provides opportunities for practicing infection control measures in hospital and community settings.

Learning outcomes

- Identify the ubiquity and diversity of microorganisms in the human body and the environment.
- Classify and explain the morphology and growth of microbes.
- Identify various types of microorganisms.
- Explore mechanisms by which microorganisms cause disease.
- Develop understanding of how the human immune system counteracts infection by specific and non-specific mechanisms.
- Apply the principles of preparation and use of vaccines in immunization.
- Identify the contribution of the microbiologist and the microbiology laboratory to the diagnosis of infection.

Theory

Unit I

- Introduction:
- Importance and relevance to nursing
- Historical perspective
- Concepts and terminology
- Principles of microbiology

Unit II

- General characteristics of Microbes:
- Structure and classification of Microbes
- Morphological types
- Size and form of bacteria
- Motility
- Colonization
- Growth and nutrition of microbes
- Temperature
- Moisture

- Blood and body fluids
- Laboratory methods for Identification of Microorganisms
- Types of Staining - simple, differential (Gram's, AFB), special - capsular staining (negative), spore, LPCB, KOH mount.
- Culture and media preparation - solid and liquid. Types of media - semi synthetic, synthetic, enriched, enrichment, selective and differential media. Pure culture techniques - tube dilution, pour, spread, streak plate. Anaerobic cultivation of bacteria

Unit III

- Pathogenic organisms
- Micro-organisms: Cocci - gram positive and gram negative; Bacilli - gram positive and gram negative
- Viruses
- Fungi: Superficial and Deep mycoses
- Parasites
- Rodents & Vectors
  - Characteristics, Source, portal of entry, transmission of infection, Identification of disease producing micro-organisms

Unit IV

- Immunity
- Immunity: Types, classification
- Antigen and antibody reaction
- Hypersensitivity reactions
- Serological tests
- Immunoglobulins: Structure, types & properties
- Vaccines: Types & classification, storage and handling, cold chain, Immunization for various diseases
- Immunization Schedule

Section b: infection control & safety

Course description

This course is designed to help students to acquire knowledge and develop competencies required for fundamental patient safety and infection control in delivering patient care. It also focuses on identifying patient safety indicators, preventing and managing hospital acquired infections, and in following universal precautions.

Learning outcomes

The students will be able to:

- Develop knowledge and understanding of Hospital acquired Infections (HAI) and effective practices for prevention.
- Integrate the knowledge of isolation (Barrier and reverse barrier) techniques in implementing various precautions.
- Demonstrate and practice steps in Hand washing and appropriate use of different types of PPE.

- Illustrate various disinfection and sterilization methods and techniques.
- Demonstrate knowledge and skill in specimen collection, handling and transport to optimize the diagnosis for treatment.
- Incorporate the principles and guidelines of Bio Medical waste management.
- Apply the principles of Antibiotic stewardship in performing the nurses' role.
- Identify patient safety indicators and perform the role of nurse in the patient safety audit process.
- Apply the knowledge of International Patient Safety Goals (IPSG) in the patient care settings.
- Identify employee safety indicators and risk of occupational hazards.
- Develop understanding of the various safety protocols and adhere to those protocols.

Unit I

- HAI (Hospital acquired Infection)
- Hospital acquired infection
- Bundle approach
- Prevention of Urinary Tract Infection (UTI)
- Prevention of Surgical Site Infection (SSI)
- Prevention of Ventilator
- Associated events (VAE)
- Prevention of Central Line Associated Blood Stream Infection (CLABSI)
- Surveillance of HAI - Infection control team & Infection control committee

Unit II

- Isolation Precautions and use of Personal Protective Equipment (PPE)
- Types of isolation system, standard precaution and transmission-based precautions (Direct Contact, Droplet, Indirect)
- Epidemiology & Infection prevention - CDC guidelines
- Effective use of PPE

Unit III

- Hand Hygiene
- Types of Hand hygiene.
- Hand washing and use of alcohol hand rub
- Moments of Hand Hygiene
- WHO hand hygiene promotion

Unit IV

- Disinfection and sterilization
- Definitions
- Types of disinfection and sterilization
- Environment cleaning

- Equipment Cleaning
- Guides on use of disinfectants
- Spaulding's principle

Unit V

- Specimen Collection (Review)
- Principle of specimen collection
- Types of specimens
- Collection techniques and special considerations
- Appropriate containers
- Transportation of the sample
- Staff precautions in handling specimens

Unit VI

- BMW (Bio Medical Waste Management)
- Laundry management process and infection control and prevention
- Waste management process and infection prevention
- Staff precautions
- Laundry management
- Country ordinance and BMW National guidelines 2017: Segregation of wastes, Colour coded waste containers, waste collection & storage, Packaging & labeling, Transportation

Unit VII

- Antibiotic stewardship
- Importance of Antibiotic Stewardship
- Anti-Microbial Resistance
- Prevention of MRSA, MDRO in healthcare setting

Unit VIII

- Patient Safety Indicators
- Care of Vulnerable patients
- Prevention of Iatrogenic injury
- Care of lines, drains and tubing's
- Restrain policy and care - Physical and Chemical
- Blood & blood transfusion policy
- Prevention of IV Complication
- Prevention of Fall
- Prevention of DVT
- Shifting and transporting of patients
- Surgical safety

- Care coordination event related to medication reconciliation and administration
- Prevention of communication errors
- Prevention of HAI
- Documentation
- Incidents and adverse Events
- Capturing of incidents
- RCA (Root Cause Analysis)
- CAPA (Corrective and Preventive Action)
- Report writing

Unit IX

- IPSG (International Patient safety Goals)
- Identify patient correctly
- Improve effective communication
- Improve safety of High Alert medication
- Ensure safe surgery
- Reduce the risk of health care associated infection
- Reduce the risk of patient harm resulting from falls
- Reduce the harm associated with clinical alarm system

Unit X

- Safety protocol
- 5S (Sort, Set in order, Shine, Standardize, Sustain)
- Radiation safety
- Laser safety
- Fire safety
- Types and classification of fire
- Fire alarms
- Firefighting equipment
- HAZMAT (Hazardous Materials) safety
- Types of spill
- Spillage management
- MSDS (Material Safety Data Sheets)
- Environmental safety
- Risk assessment
- Aspect impact analysis
- Maintenance of Temp and Humidity (Department wise)
- Audits

- Emergency Codes
- Role of Nurse in times of disaster

Unit XI

- Employee Safety Indicators
- Vaccination
- Needle stick injuries (NSI)
- prevention
- Fall prevention
- Radiation safety
- Annual health check
- Healthcare Worker Immunization Program and management of occupational exposure
- Occupational health ordinance
- Vaccination program for healthcare staff
- Needle stick injuries and prevention and post exposure prophylaxis
- Experiential Learning:

Experiential learning is the process by which knowledge is created through the process of experience in the clinical field. Knowledge results from the combination of grasping and transforming experience. (Kolb, 1984). The experiential learning cycle begins with an experience that the student has had, followed by an opportunity to reflect on that experience. Then students may conceptualize and draw conclusions about what they experienced and observed, leading to future actions in which the students experiment with different behaviors. This begins the new cycle as the students have new experiences based on their experimentation. These steps may occur in nearly and order as the learning progresses. As per the need of the learner, the concrete components and conceptual components can be in different order as they may require a variety of cognitive and affective behaviors.

Pharmacology I

20 hours theory | 1 credit

Course description

This course is designed to enable students to acquire understanding of Pharmacodynamics, Pharmacokinetics, principles of therapeutics and nursing implications.

Learning outcomes

- Describe pharmacodynamics and pharmacokinetics.
- Review the principles of drug calculation and administration.
- Explain the commonly used antiseptics and disinfectants.
- Describe the pharmacology of drugs acting on the GI system.
- Describe the pharmacology of drugs acting on the respiratory system.
- Describe drugs used in the treatment of cardiovascular and blood disorders.
- Explain the drugs used in the treatment of endocrine system disorders.
- Describe the drugs acting on skin and drugs used to treat communicable diseases.

Theory

Unit I

- Introduction to Pharmacology
- Definitions & Branches
- Nature & Sources of drugs
- Dosage Forms and Routes of drug administration
- Terminology used
- Classification, Abbreviations, Prescription, Drug Calculation, Weights and Measures
- Pharmacodynamics: Actions, Drug Antagonism, Synergism, Tolerance, Receptors, Therapeutic, adverse, toxic effects, pharmacovigilance
- Pharmacokinetics: Absorption, Bioavailability, Distribution, Metabolism, Interaction, Excretion
- Review: Principles of drug administration and treatment individualization
  - Factors affecting dose, route etc.
- Indian Pharmacopoeia: Legal Issues, Drug Laws, Schedule Drugs
- Rational Use of Drugs
- Principles of Therapeutics

Unit II

- Pharmacology of commonly used antiseptics and disinfectants
- Antiseptics and Disinfectants

- Composition, action, dosage, route, indications, contraindications, Drug interactions, side effects, adverse effects, toxicity and role of nurse

Unit III

- Drugs acting on G.I. system
- Pharmacology of commonly used drugs
  - Emetics and Antiemetics
  - Laxatives and Purgatives
  - Antacids and antipeptic ulcer drugs
  - Anti-diarrhoeals - Fluid and electrolyte therapy, Furazolidone, dicyclomine
- Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse

Unit IV

- Drugs acting on respiratory system
- Pharmacology of commonly used
  - Antiasthmatics - Bronchodilators (Salbutamol inhalers)
  - Decongestants
  - Expectorants, Antitussives and Mucolytics
  - Broncho-constrictors and Antihistamines
- Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects toxicity and role of nurse

Unit V

- Drugs used in treatment of Cardiovascular system and blood disorders
- Haematinics, & treatment of anemia and antiadrenergics
- Cholinergic and anticholinergic
- Adrenergic Drugs for CHF & vasodilators
- Antianginals
- Antiarrhythmics
- Antihypertensives
- Coagulants & Anticoagulants
- Antiplatelets & thrombolytics
- Hypolipidemics
- Plasma expanders & treatment of shock
- Drugs used to treat blood disorders
- Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse

Unit VI

- Drugs used in treatment of endocrine system disorders

- Insulin & oral hypoglycemics
- Thyroid and anti-thyroid drugs
- Steroids
  - Corticosteroids
  - Anabolic steroids
- Calcitonin, parathormone, vitamin D3, calcium metabolism
  - Calcium salts

Unit VII

- Drugs used in treatment of integumentary system
- Antihistaminics and antipruritics
- Topical applications for skin- Benzylbenzoate, Gamma BHC, Clotrimazole, Miconazole, Silver Sulphadiazine (burns)
- Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects toxicity and role of nurse

Unit VIII

- Drugs used in treatment of communicable diseases (common infections, infestations)
- General Principles for use of Antimicrobials
- Pharmacology of commonly used drugs:
  - Penicillin, Cephalosporin's, Aminoglycosides, Macrolide & broad spectrum antibiotics, Sulfonamides, quinolones, Misc. antimicrobials
- Anaerobic infections
- Antitubercular drugs,
- Antileprosy drugs
- Antimalarials
- Antiretroviral drugs
- Antiviral agents
- Antihelminthics, Antiscabies agents
- Antifungal agents
- Composition, action, dosage, route, indications, contraindications, Drug interactions, side effects, adverse effects, toxicity and role of nurse

Pathology I

20 hours theory | 1 credit

Course description

This course is designed to enable students to acquire knowledge of pathology of various disease conditions, understanding of genetics, its role in causation and management of defects and diseases and to apply this knowledge in practice of nursing.

Learning outcomes

- Apply the knowledge of pathology in understanding the deviations from normal to abnormal pathology.
- Rationalize the various laboratory investigations in diagnosing pathological disorders.
- Demonstrate the understanding of the methods of collection of blood, body cavity fluids, urine and feces for various tests.
- Apply the knowledge of genetics in understanding the various pathological disorders.
- Appreciate the various manifestations in patients with diagnosed genetic abnormalities.
- Rationalize the specific diagnostic tests in the detection of genetic abnormalities.
- Demonstrate the understanding of various services related to genetics.

Theory

Unit I

- Introduction
- Importance of the study of pathology
- Definition of terms in pathology
- Cell injury: Etiology, pathogenesis of reversible and irreversible cell injury, Necrosis, Gangrene
- Cellular adaptations: Atrophy, Hypertrophy, Hyperplasia, Metaplasia, Dysplasia, Apoptosis
- Inflammation:
  - Acute inflammation (Vascular and Cellular events, systemic effects of acute inflammation)
  - Chronic inflammation (Granulomatous inflammation, systemic effects of chronic inflammation)
- Wound healing
- Neoplasia: Nomenclature, Normal and Cancer cell, Benign and malignant tumors, Carcinoma in situ, Tumor metastasis: general mechanism, routes of spread and examples of each route
- Circulatory disturbances: Thrombosis, embolism, shock
- Disturbance of body fluids and electrolytes: Edema, Transudates and Exudates

Unit II

- Special Pathology
- Pathological changes in disease conditions of selected systems:
- Respiratory system
- Pulmonary infections: Pneumonia, Lung abscess, pulmonary tuberculosis

- Chronic Obstructive Pulmonary Disease: Chronic bronchitis, Emphysema, Bronchial Asthma, Bronchiectasis
- Tumors of Lungs
- Cardio-vascular system
- Atherosclerosis
- Ischemia and Infarction.
- Rheumatic Heart Disease
- Infective endocarditis
- Gastrointestinal tract
- Peptic ulcer disease (Gastric and Duodenal ulcer)
- Gastritis-H Pylori infection
- Oral mucosa: Oral Leukoplakia, Squamous cell carcinoma
- Esophageal cancer
- Gastric cancer
- Intestinal: Typhoid ulcer, Inflammatory Bowel Disease (Crohn's disease and Ulcerative colitis), Colorectal cancer
- Liver, Gall Bladder and Pancreas
- Liver: Hepatitis, Amoebic Liver abscess, Cirrhosis of Liver
- Gall bladder: Cholecystitis.
- Pancreas: Pancreatitis
- Tumors of liver, Gall bladder and Pancreas
- Skeletal system
- Bone: Bone healing, Osteoporosis, Osteomyelitis, Tumors
- Joints: Arthritis - Rheumatoid arthritis and Osteoarthritis
- Endocrine system
- Diabetes Mellitus
- Goitre
- Carcinoma thyroid

Unit III

- Hematological tests for the diagnosis of blood disorders
- Blood tests: Hemoglobin, White cell and platelet counts, PCV, ESR
- Coagulation tests: Bleeding time (BT), Prothrombin time (PT), Activated Partial Prothrombin Time (APTT)
- Blood chemistry
- Blood bank:
  - Blood grouping and cross matching
  - Blood components

- Plasmapheresis
- Transfusion reactions

- Note: Few lab hours can be planned for observation and visits (Less than 1 credit, lab hours are not specified separately)

Adult Health Nursing I

140 hours theory | 40 hours lab | 480 hours clinical | 14 credits

Includes the BCLS module.

Course description

This course is designed to equip the students to review and apply their knowledge of Anatomy, Physiology, Biochemistry and Behavioral sciences in caring for adult patients with Medical/Surgical disorders using nursing process approach and critical thinking. It also intends to develop competencies required for assessment, diagnosis, treatment, nursing management, and supportive/palliative care to patients with various Medical Surgical disorders.

Learning outcomes

- Explain the etiology, pathophysiology, manifestations, diagnostic studies, treatments and complications of common medical and surgical disorders.
- Perform complete health assessment to establish a data base for providing quality patient care and integrate the knowledge of anatomy, physiology and diagnostic tests in the process of data collection.
- Identify nursing diagnoses, list them according to priority and formulate nursing care plan.
- Perform nursing procedures skillfully and apply scientific principles while giving comprehensive nursing care to patients.
- Integrate knowledge of pathology, nutrition and pharmacology in caring for patients experiencing various medical and surgical disorders.
- Identify common diagnostic measures related to the health problems with emphasis on nursing assessment and responsibilities.
- Demonstrate skill in assisting/performing diagnostic and therapeutic procedures.
- Demonstrate competencies/skills to patients undergoing treatment for medical surgical disorders.
- Identify the drugs used in treating patients with medical surgical conditions.
- Plan and give relevant individual and group education on significant medical surgical topics.
- Maintain safe environment for patients and the health care personnel in the hospital.
- Integrate evidence-based information while giving nursing care to patients.

Theory

Unit I

- Introduction
- Evolution and trends of medical and surgical nursing
- International classification of diseases
- Roles and responsibility of a nurse in medical and surgical settings
  - Outpatient department
  - In-patient unit
  - Intensive care unit

- Introduction to medical and surgical asepsis
  - Inflammation, infection
  - Wound healing - stages, influencing factors
  - Wound care and dressing technique
- Care of surgical patient
  - pre-operative
  - post-operative
- Alternative therapies used in caring for patients with Medical Surgical Disorders

Unit II

- Intraoperative Care
- Organization and physical set up of the operation theatre
  - Classification
  - O.T Design
  - Staffing
  - Members of the OT team
  - Duties and responsibilities of the nurse in OT
- Position and draping for common surgical procedures
- Instruments, sutures and suture materials, equipment for common surgical procedures
- Disinfection and sterilization of equipment
- Preparation of sets for common surgical procedures
- Scrubbing procedures - Gowning, masking and gloving
- Monitoring the patient during the procedures
- Maintenance of the therapeutic environment in OT
- Assisting in major and minor operation, handling specimen
- Prevention of accidents and hazards in OT
- Anaesthesia - types, methods of administration, effects and stages, equipment & drugs
- Legal aspects

Unit III

- Nursing care of patients with common signs and symptoms and management
- Fluid and electrolyte imbalance
- Shock
- Pain

Unit IV

- Nursing Management of patients with respiratory problems
- Review of anatomy and physiology of respiratory system
- Nursing Assessment - history taking, physical assessment and diagnostic tests

- Common respiratory problems:
  - Upper respiratory tract infections
  - Chronic obstructive pulmonary diseases
  - Pleural effusion, Empyema
  - Bronchiectasis
  - Pneumonia
  - Lung abscess
  - Cyst and tumors
  - Chest Injuries
  - Acute respiratory distress syndrome
  - Pulmonary embolism
- Health behaviours to prevent respiratory illness

Unit V

- Nursing Management of patients with disorders of digestive system
- Review of anatomy and physiology of GI system
- Nursing assessment -History and physical assessment
- GI investigations
- Common GI disorders:
  - Oral cavity: lips, gums and teeth
  - GI: Bleeding, Infections, Inflammation, tumors, Obstruction, Perforation & Peritonitis
  - Peptic & duodenal ulcer,
  - Mal-absorption, Appendicitis, Hernias
  - Hemorrhoids, fissures, Fistulas
  - Pancreas: inflammation, cysts, and tumors
  - Liver: inflammation, cysts, abscess, cirrhosis, portal hypertension, hepatic failure, tumors
  - Gall bladder: inflammation, Cholelithiasis, tumors
- Gastric decompression, gavage and stoma care, different feeding techniques
- Alternative therapies, drugs used in treatment of disorders of digestive system

Unit VI

- Nursing Management of patients with cardiovascular problems
- Review of anatomy and physiology of cardio-vascular system
- Nursing Assessment: History and Physical assessment
- Invasive & non-invasive cardiac procedures
- Disorders of vascular system- Hypertension, arteriosclerosis, Raynaud's disease, aneurysm and peripheral vascular disorders
- Coronary artery diseases: coronary atherosclerosis, Angina pectoris, myocardial infarction

- Valvular disorders: congenital and acquired
- Rheumatic heart disease: pericarditis, myocarditis, endocarditis, cardiomyopathies
- Cardiac dysrhythmias, heart block
- Congestive heart failure, corpulmonale, pulmonary edema, cardiogenic shock, cardiac tamponade
- Cardiopulmonary arrest

Unit VII

- Nursing Management of patients with disorders of blood
- Review of Anatomy and Physiology of blood
- Nursing assessment: history, physical assessment & Diagnostic tests
- Anemia, Polycythemia
- Bleeding Disorders: clotting factor defects and platelets defects, thalassemia, leukemia, leukopenia,
- agranulocytosis
- Lymphomas, myelomas

Unit VIII

- Nursing management of patients with disorders of endocrine system
- Review of anatomy and physiology of endocrine system
- Nursing Assessment -History and Physical assessment
- Disorders of thyroid and Parathyroid, Adrenal and Pituitary (Hyper, Hypo, tumors)
- Diabetes mellitus

Unit IX

- Nursing management of patients with disorders of Integumentary system
- Review of anatomy and physiology of skin
- Nursing Assessment: History and Physical assessment
- Infection and infestations; Dermatitis
- Dermatoses; infectious and Non infectious
- Acne, Allergies, Eczema & Pemphigus
- Psoriasis, Malignant melanoma, Alopecia
- Special therapies, alternative therapies
- Drugs used in treatment of disorders of integumentary system

Unit X

- Nursing management of patients with musculoskeletal problems
- Review of Anatomy and physiology of the musculoskeletal system
- Nursing Assessment: History and physical assessment, diagnostic tests
- Musculoskeletal trauma: Dislocation, fracture, sprain, strain,
- contusion, amputation
- Musculoskeletal infections and tumors: Osteomyelitis, benign and malignant tumour

- Orthopedic modalities: Cast, splint, traction, crutch walking
- Musculoskeletal inflammation: Bursitis, synovitis, arthritis
- Special therapies, alternative therapies
- Metabolic bone disorder: Osteoporosis, osteomalacia and Paget's disease
- Spinal column defects and deformities - tumor, prolapsed intervertebral disc, Pott's spine
- Rehabilitation, prosthesis
- Replacement surgeries

Unit XI

- Nursing management of patients with Communicable diseases
- Overview of infectious diseases, the infectious process
- Nursing Assessment: History and Physical assessment, Diagnostic tests
- Tuberculosis
- Diarrhoeal diseases, hepatitis A- E, Typhoid
- Herpes, chickenpox, Smallpox, Measles, Mumps, Influenza
- Meningitis
- Gas gangrene
- Leprosy
- Dengue, Plague, Malaria, Chikungunya, swine flu, Filariasis
- Diphtheria, Pertussis, Tetanus, Poliomyelitis
- COVID-19
- Special infection control measures: Notification, Isolation, Quarantine, Immunization

Clinical practicum

CLINICAL PRACTICUM: 6 Credits (480 hours) - 18 weeks × 27 hours

PRACTICE COMPETENCIES: On completion of the clinical practicum, the students will be able to apply nursing

process and critical thinking in delivering holistic nursing care including rehabilitation to the adult patients undergoing surgery, with shock and fluid and electrolyte imbalance and with selected medical & surgical conditions i.e., Gastrointestinal, Respiratory, Endocrine, Orthopedic, Dermatology and Cardiovascular disorders.

The students will be competent to:

- Utilize the nursing process in providing care to the sick adults in the hospital:

a. Perform complete health assessment to establish a data base for providing quality patient care.

b. Integrate the knowledge of diagnostic tests in the process of data collection.

c. Identify nursing diagnoses and list them according to priority.

d. Formulate nursing care plan, using problem solving approach.

e. Apply scientific principles while giving nursing care to patients.

f. Perform nursing procedures skillfully on patients.

g. Establish/develop interpersonal relationship with patients and family members.

h. Evaluate the expected outcomes and modify the plan according to the patient needs.

- Provide comfort and safety to adult patients in the hospital.
- Maintain safe environment for patients during hospitalization.
- Explain nursing actions appropriately to the patients and family members.
- Ensure patient safety while providing nursing procedures.
- Assess the educational needs of the patient and their family related to medical and surgical disorders and provide appropriate health education to patients.
- Provide pre, intra and post-operative care to patients undergoing surgery.
- Integrate knowledge of pathology, nutrition and pharmacology for patients experiencing various medical and surgical disorders.
- Integrate evidence-based information while giving nursing care to patients.
- Demonstrate the awareness of legal and ethical issues in nursing practice.

I. NURSING MANAGEMENT OF PATIENTS WITH MEDICAL CONDITIONS

A. Skill Lab

Use of manikins and simulators

- Intravenous therapy
- Oxygen through mask
- Oxygen through nasal prongs
- Venturi mask
- Nebulization
- Chest physiotherapy

B. Clinical Postings

Practical and clinical

General medical (4 weeks)

- Intravenous therapy
  - IV cannulation
  - IV maintenance and monitoring
  - Administration of IV medication

Clinical requirements

- Care Study - 1
- Health education
- Clinical presentation/ Care
- Care of patient with Central line
- Preparation and assisting and monitoring of patients undergoing diagnostic procedures such as thoracentesis, Abdominal paracentesis

- Management patients with respiratory problems
- Administration of oxygen through mask, nasal prongs, venturi mask
- Pulse oximetry
- Nebulization
- Chest physiotherapy
- Postural drainage
- Oropharyngeal suctioning
- Care of patient with chest drainage
- Diet Planning
  - High Protein diet
  - Diabetic diet
- Insulin administration
- Monitoring GRBS

Clinical requirements

- note) - 1

II. NURSING MANAGEMENT OF PATIENTS WITH SURGICAL CONDITIONS

A. Skill Lab

Use of manikins and simulators

- Nasogastric aspiration
- Surgical dressing
- Suture removal
- Colostomy care/ileostomy care
- Enteral feeding

B. Clinical Postings

General surgical wards (4 weeks)

- Pre-Operative care
- Immediate Post-operative care
- Post-operative exercise
- Pain assessment
- Pain Management
- Assisting diagnostic procedure and after care of patients undergoing
  - Colonoscopy
  - ERCP
  - Endoscopy
  - Liver Biopsy

Clinical requirements

- Care study - 1
- Health teaching

Clinical skills (continued)

- Nasogastric aspiration
- Gastrostomy/Jejunostomy feeds
- Ileostomy/Colostomy care
- Surgical dressing
- Suture removal
- Surgical soak
- Sitz bath
- Care of drain
- Develop skill in wound management

III. NURSING MANAGEMENT OF PATIENTS WITH CARDIAC CONDITIONS

A. Skill Lab

Use of manikins and simulators

- Cardiovascular assessment
- Interpreting ECG
- BLS/BCLS
- CPR
- ABG analysis
- Taking blood sample
- Arterial blood gas analysis - interpretation

B. Clinical Postings

Cardiology wards (2 weeks)

- Cardiac monitoring
- Recording and interpreting ECG
- Arterial blood gas analysis - interpretation
- Administer cardiac drugs
- Preparation and after care of patients for cardiac catheterization
- CPR
- Collection of blood sample for:
  - Blood grouping/cross matching
  - Blood sugar
  - Serum electrolytes
- Assisting with blood transfusion

- Assisting for bone marrow aspiration
- Application of anti-embolism stockings (TED hose)
- Application/maintenance of sequential Compression device

Clinical requirements

- Cardiac assessment - 1
- Drug presentation
- 1

IV. NURSING MANAGEMENT OF PATIENTS WITH DISORDERS OF INTEGUMENTARY SYSTEM

A. Skill Lab

Use of manikins and simulators

Application of topical medication

B. Clinical Postings

Dermatology wards (1 week)

- Intradermal injection-Skin allergy testing
- Application of topical medication
- Medicated bath

V. NURSING MANAGEMENT OF PATIENTS WITH COMMUNICABLE DISEASES

A. Skill Lab

- Barrier Nursing
- Reverse Barrier Nursing
- Standard precautions

B. Clinical Postings

Isolation ward (1 week)

- Barrier Nursing
- Reverse barrier nursing
- Standard precautions (Universal precaution), use of PPE, needle stick and sharp injury prevention, Cleaning and disinfection, Respiratory hygiene, waste disposal and safe injection practices)

Clinical requirements

- Care Note - 1

VI. NURSING MANAGEMENT OF PATIENTS WITH MUSCULOSKELETAL PROBLEMS

A. Skill Lab

Use of manikins and simulators

- Range of motion exercises
- Muscle strengthening exercises
- Crutch walking

B. Clinical Postings

Orthopedic wards (2 weeks)

- Preparation of patient with Myelogram/CT/MRI
- Assisting with application & removal of POP/Cast
- Preparation, assisting and after care of patient with Skin

Clinical requirements

- Care Note - 1

traction/skeletal traction

- Care of orthotics
- Muscle strengthening exercises
- Crutch walking
- Rehabilitation

VII. NURSING MANAGEMENT OF PATIENTS IN THE OPERATING ROOMS

A. Skill Lab

Use of manikins and simulators

- Scrubbing, gowning and gloving
- Orient to instruments for common surgeries
- Orient to suture materials
- Positioning

B. Clinical Postings

Operation theatre (4 weeks)

- Position and draping
- Preparation of operation table
- Set up of trolley with instrument
- Assisting in major and minor operation
- Disinfection and sterilization of equipment
- Scrubbing procedures - Gowning, masking and gloving
- Intra operative monitoring

Clinical requirements

- Assist as circulatory nurse - 4
- Positioning & draping - 5
- Assist as scrub nurse in major surgeries - 4
- Assist as scrub nurse in minor surgeries - 4

Clinical skills logbook

III & IV SEMESTER

- Competencies/Skills

I MEDICAL

- Intravenous therapy
- IV cannulation
- IV maintenance & monitoring
- Administration of IV medication
- Care of patient with Central
- Line
- Line
- Preparation, assisting, and after care of patients undergoing diagnostic procedures
- Thoracentesis
- Abdominal paracentesis
- Respiratory therapies and monitoring
- Administration of oxygen using venturi mask
- Nebulization
- Competencies/Skills
- Chest physiotherapy
- Postural drainage
- Oropharyngeal suctioning
- Care of patient with chest drainage
- Planning therapeutic diet
- High protein diet
- Diabetic diet
- Performing and monitoring
- GRBS
- Insulin administration
- SURGICAL
- Pre-Operative care
- Immediate Post-operative care
- Post-operative exercise
- Pain assessment and management
- Assisting diagnostic procedures and after care of patients undergoing
- Colonoscopy
- ERCP
- Endoscopy
- Liver Biopsy
- Nasogastric aspiration

- Gastrostomy/Jejunostomy feeds
- Ileostomy/Colostomy care
- Surgical dressing
- Suture removal
- Surgical soak
- Sitz bath
- Care of drain
- CARDIOLOGY
- Cardiac monitoring
- Recording and interpreting ECG
- Arterial blood gas analysis -
- Competencies/Skills
- interpretation
- Administration of cardiac drugs
- Preparation and after care of patients undergoing cardiac
- Catheterization
- Performing BCLS
- Collection of blood sample for
- Blood grouping/cross matching
- Blood sugar
- Serum electrolytes
- Assisting with blood transfusion
- Assisting for bone marrow aspiration
- Application of antiembolism stockings (TED hose)
- Application/maintenance of sequential Compression
- Device
- DERMATOLOGY
- Application of topical medication
- Intradermal injection-Skin allergy testing
- Medicated bath
- COMMUNICABLE
- Intradermal injection-BCG and Tuberculin skin Test or Mantoux test
- Barrier nursing & Reverse barrier nursing
- Standard precautions-Hand hygiene, use of PPE, needle stick and sharp injury prevention, Cleaning and disinfection, Respiratory hygiene, waste disposal and safe injection practices
- MUSCULOSKELETAL

- Preparation of patient with Myelogram/CT/MRI
- Assisting with application & removal of POP/Cast
- Preparation, assisting and after care of patient with Skin traction/skeletal traction
- Care of orthotics
- Muscle strengthening exercises
- Crutch walking
- Rehabilitation
- OR
- Position and draping
- Preparation of operation table
- Set up of trolley with instrument
- Assisting in major and minor operation
- Disinfection and sterilization of equipment
- Scrubbing procedures - Gowning, masking and gloving
- Intra operative monitoring

Clinical requirements

- Medical
- Care Study - 1
- Care Study 1
- Health education - 1
- Clinical presentation/care note 1
- Clinical presentation/care note - 1
- Surgical
- Care study - 1
- Health education - 1
- Clinical Presentation/Care note - 1
- Cardiac
- Cardiac assessment - 1
- Drug presentation - 1
- Communicable
- Clinical presentation/Care note - 1
- Musculoskeletal
- Clinical presentation/Care note - 1
- OR
- Assist as circulatory nurse - 5

- i.
- ii.
- iii.
- iv.
- v.
- Assist as scrub nurse in minor surgeries - 5
- i.
- ii.
- iii.
- iv.
- v.
- Positioning & draping - 5
- i.
- ii.
- iii.
- iv.
- v.
- Assist as scrub nurse in major surgeries - 5
- i.
- ii.
- iii.
- iv.
- v.
- Completion of BCLS module

Curriculum Update

- The INC corrigendum adds asthma to Unit IV and updates the Semester III clinical logbook on source pages 423 and 424.

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