



# Medical Nursing I Module

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**Bachelor of Science (Honours) in Nursing Degree**  
**Department of Nursing and Midwifery**  
**Faculty of Allied Health Sciences**  
**University of Sri Jayewardenepura**

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# **Medical nursing I Module**

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Faculty of Allied Health Sciences  
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# **MEDICAL NURSING I (THEORY AND PRACTICE) MODULE**

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## **MEDICAL NURSING I MODULE**

## **Introduction**

Introduction to Medical Nursing I focusing on gaining knowledge, skills and attitudes to deliver comprehensive nursing care for adult and older patients with medical disease conditions. The subject will give knowledge and skills to be competent in providing nursing care to achieve aims of promoting health, prevention of illness, alleviation of suffering, and restoration of health in collaboration with the health care team. This subject will appreciate the incorporation of ethical principles, principles of nursing practice and cultural competence in providing nursing care in clinical and community settings.

## Module – Medical Nursing I -Theory and Practice

Credits: 6.5

Placement: Term 4-6 (2nd year)

Prerequisites: Concurrent Pathology, Pharmacology, Microbiology and Parasitology

Teaching Unit: Department of Nursing & Midwifery -Faculty of Allied Health Sciences and  
Department of Medicine- Faculty of Medical Sciences

Teaching learning methods: Lectures / Tutorials/ Student Presentations/ Problem Based Learning/ Student Seminars/Case Studies/ Small Group Discussions/Assignments/Practical ((Demonstrations and return demonstrations)

<b>Subject</b>	<b>Lecture/ Tutorial Hrs</b>	<b>Lec. credits</b>	<b>Lab Hrs</b>	<b>Lab. credits</b>	<b>Practice Hrs</b>	<b>Prac. credits</b>	<b>Total Hrs</b>	<b>Total credits</b>
Medical Nursing I	37.5	2.5	7.5	0.25	187.5	3.75	232.5	6.5

### Aim

At the end of this module, students should be competent in providing nursing care as a member of health care team for adult and older clients undergoing medical treatments and performing the nurse's role in managing medical conditions focusing on promoting health, prevention of illness, alleviation of suffering and restoration of health with appropriate attitudes and incorporating ethical principles and cultural competence ensuring safety in clinical and community settings.

## Main Content Areas

No	Main content area	Lecture Hours	Practical Hours	Tutorial/SGD Hours
01.	Nursing management of patients with water, acid-base and electrolyte imbalances	3.5	-	01
02.	Nursing management of patients in shock	02	-	02 (SGD)
03.	Nursing management of patients with communicable diseases	-	-	06 (students' presentations)
04.	Nursing management of patients in pain	03	-	-
05.	Nursing management of patients with respiratory disorders	05	-	01
06.	Nursing management of patients with cardiovascular disorders	07	-	01
07.	Nursing management of patients with gastrointestinal disorders	05	-	01

### 1. Nursing management of patients with water, acid-base and electrolyte imbalances

Intermediate objectives	Broad content areas	Activity	Duration	Responsible/Resource person
1.1 To identify the clients with fluid volume, acid base and electrolyte imbalances	Review normal anatomy and physiology of body fluid composition Types of fluid volume imbalances	Lecture	4.5 hr	Lecturer from Department of Nursing and Midwifery

	<ul style="list-style-type: none"> <li>- Fluid volume deficit</li> <li>- Fluid volume excess</li> </ul>			
	Metabolic acidosis Metabolic alkalosis Respiratory acidosis Respiratory alkalosis	Lecture		
	Sodium, potassium, magnesium and calcium imbalances Other common electrolyte imbalances in human body – phosphorus, chloride..	Lecture		
1.2 To describe nursing care for a client with water, acid-base and electrolyte imbalances	Assisting with laboratory investigations <ul style="list-style-type: none"> <li>• Arterial Blood Gas Analysis</li> <li>• Venepuncture</li> </ul> Fluid and electrolytes replacement and care/ Fluid therapy	Tutorial		

## 2. Nursing management of patients in shock

Intermediate objectives	Broad content areas	Activity	Duration	Responsible/Resource person
2.1 To describe nursing management of shock	Define the term "shock" Pathophysiology of shock	SGD/ Tutorial	04 hours	Lecturer from Department of Nursing and Midwifery
	Types of shock – hypovolemic, Cardiogenic, haemorrhagic, neurogenic, anaphylactic Signs and symptoms of shock			

	Medical diagnosis and treatment of shock Prevention of shock and complications Prognosis Critical care in patients with shock	Lecture		
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### 3. Nursing management of patients with communicable diseases

<b>Intermediate objectives</b>	<b>Broad content areas</b>	<b>Activity</b>	<b>Duration</b>	<b>Responsible/Resource person</b>
3.1 To describe nursing care for patients with communicable diseases	Respiratory tract - Tuberculosis - Whooping Cough, - Diphtheria, - Influenza - Ebola virus	Students' Presentations	06 hrs	Lecturer from Department of Nursing and Midwifery
	Gastrointestinal tract - Cholera, - Dysentery, - Viral hepatitis			
	Diseases spread through vectors - Dengue Fever, - Malaria - Japanese Encephalitis, - Leptospirosis,			
3.2 Describe nursing care for a patient with the communicable diseases	Diseases spread through Animals - Human rabies - Plague - Yellow Fever			

spread through Animals				
3.3. Describe nursing care for a patient with the communicable diseases spread by direct contact	Diseases spread by direct contact - Leprosy			
3.4. Describe nursing care for a patient with sexually Transmitted Diseases	Sexually Transmitted Diseases - HIV/AIDS - Syphilis - Gonorrhoea - Herpes - Genital warts			
3.5 Describe nursing care for a patient with Hospital Acquired Infections	Hospital Acquired Infections - MRSA - Hospital Acquired Pneumonia - others			
3.6 Describe nursing care for a patient with Emerging diseases	Emerging diseases Covid 19 SARS MERS Ebola Zika			

#### 4. Nursing management of patients in pain

Intermediate objectives	Broad content areas	Activity	Duration	Responsible/Resource person
4.1 To understand mechanism and effects of pain	Pain management - Introduction to pain management - Physiological and neurological mechanisms of pain - Effects of pain	Lecture/ Literature Review	03 hours	Lecturer from Department of Nursing and Midwifery
4.2 To describe Invasive &	Invasive & non-invasive pain relief measures - Pharmacological			

non-invasive pain relief measures	and non-pharmacological methods in pain management	Practical		
4.3 To describe Nursing management of patients with pain	Nursing responsibilities in relieving pain <ul style="list-style-type: none"> <li>- Pain assessment and nursing interventions</li> </ul>			

5. Nursing management for patients with respiratory disorders

Intermediate objectives	Broad content areas	Activity	Duration	Responsible/Resource person
5.1 To describe nursing management of patients with respiratory disorders	Assessment of a patient with respiratory disorders <ul style="list-style-type: none"> <li>- Health history and physical examination</li> <li>- Medical diagnostic procedures of the respiratory tract illnesses <ul style="list-style-type: none"> <li>o Pulmonary Function Tests</li> <li>o Imaging studies</li> <li>o ABG</li> <li>o Sputum studies</li> <li>o Endoscopic procedures</li> </ul> </li> </ul>	Lecture / Students Assignments	05 hours	Lecturer from Department of Nursing and Midwifery/ Department of Medicine- Faculty of Medicine

5.1 Describe respiratory care modalities	Respiratory care modalities <ul style="list-style-type: none"> <li>- Oxygen therapy</li> <li>- Nebulization</li> <li>- Artificial airways</li> <li>- Mechanical ventilation</li> </ul>	Practical		
5.2 Describe nursing care for a patient with respiratory tract infections	Nursing care for a patient with respiratory tract infections <ul style="list-style-type: none"> <li>- upper respiratory tract illness</li> <li>- chest and lower respiratory tract illness</li> </ul>			
5.3 Describe nursing care for a patient with acute/chronic respiratory failure	Nursing care for a patient with acute/chronic respiratory failure <ul style="list-style-type: none"> <li>- Classification of respiratory failure</li> <li>- Medical and nursing management for a patient with respiratory failure</li> </ul>	Lecture / Tutorial		
5.4 Describe nursing care for a patient with chronic obstructive pulmonary diseases (COPD)	Chronic Obstructive Pulmonary Diseases (COPD) <ul style="list-style-type: none"> <li>Types of COPD</li> <li>Asthma</li> <li>Chronic bronchitis</li> <li>Emphysema</li> <li>Pathophysiology of COPD</li> <li>Medical management and nursing management for a</li> </ul>			

	patient with COPD		
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## 6. Nursing management of patients with cardiovascular disorders

Intermediate objectives	Broad content areas	Activity	Duration	Responsible/Resource person
6.1 To describe nursing management of patients with Cardiovascular disorders	Assessment of a patient with Cardiovascular disorder <ul style="list-style-type: none"> <li>- Health history and physical examination</li> <li>- Medical diagnostic procedures of the cardiovascular disorders</li> <li>- Cardiovascular monitoring</li> </ul>	Lecture  Tutorial	08	Lecturer from Department of Nursing and Midwifery/ Department of Medicine- Faculty of Medicine
6.2 Describe care for the patient with Patients with degenerative cardiovascular disorders	Degenerative cardiovascular disorders <ul style="list-style-type: none"> <li>- Ischaemic Heart Disease</li> <li>Stable angina</li> <li>Unstable angina</li> <li>Myocardial infarction</li> <li>- Heart failure</li> <li>- Hypertension</li> </ul>			
6.3 Describe care for the patient with Patients with inflammatory heart disorders	Inflammatory heart disorders <ul style="list-style-type: none"> <li>- Pericarditis</li> <li>- Infective endocarditis</li> </ul>			

6.4 Describe care for the patients with cardiovascular conditions secondary to other disease processes	<p>Cardiovascular conditions secondary to other disease processes</p> <ul style="list-style-type: none"> <li>- Dysrhythmias and conduction disturbances</li> <li>- Pulmonary edema</li> </ul>			
6.5 Describe Principles of management of patients with cardiovascular emergencies & CPR	<p>Management of patients with cardiovascular emergencies &amp; CPR</p> <ul style="list-style-type: none"> <li>- ECG monitoring</li> <li>- BLS</li> <li>- CPR</li> <li>- ACLS protocol</li> </ul>	Lecture Practical		

## 7 Nursing management of patients with gastrointestinal disorders

<b>Intermediate objectives</b>	<b>Broad content areas</b>	<b>Activity</b>	<b>Duration</b>	<b>Responsible/Resource person</b>
7.1 To describe nursing management of patients with gastrointestinal tract disorders	<p>Assessment of a patient with gastrointestinal tract disorder</p> <ul style="list-style-type: none"> <li>- Health history and physical assessment</li> <li>- Medical diagnostic procedures of the gastrointestinal tract and relevant nursing care</li> </ul>	Lecture Tutorial	06 hours	Lecturer from Department of Nursing and Midwifery/ Department of Medicine- Faculty of Medicine
7.2 Describe care for the patients with	<p>Mouth and oesophageal disorders</p> <ul style="list-style-type: none"> <li>- Oral disorders</li> </ul>			

mouth and oesophageal disorders	Stomatitis, dental caries, abnormalities of the lip, abnormalities of gum, abnormalities of salivary glands - Oesophageal disorders Achalasia, GORD, Hiatus hernia, Barrett's esophagus			
7.3 Describe care for the patients with stomach and intestinal disorders	Stomach and intestinal disorders - Stomach disorders Peptic Ulcer Disease (PUD) - Intestinal disorders Inflammatory Bowel Disease Appendicitis Peritonitis			
7.4 Describe care for the patients with Pancreatitis and hepato-biliary disorders	Pancreatitis and hepato-biliary disorders - Acute and chronic pancreatitis - Hepato-biliary disorders Hepatitis Cirrhosis Liver failure			

<b>Intermediate Objectives Areas</b>	<b>Broad Content Areas</b>	<b>Activity</b>	<b>Duration/ Lab hours/ Clinical hours</b>
1.) To be competent in health assessment of adult patients	Health Assessment 1.1 Skills in taking Health history 1.2 Skills in performing Physical Assessment using techniques Inspection Palpation Percussion Auscultation	In practice/ Bedside/ Clinical Teaching	Medical wards and special units placement
2.) To be competent in maintaining fluid, electrolytes and acid base balance	Fluid, electrolytes and acid base balance 2.1. Skills in identifying types of fluids administered in relevant situations 2. 2. Responsibilities of a nurse in ABG analysis 2.3. Care for patients with electrolyte imbalance	In practice/ Bedside/ Clinical Teaching	<b>Medical wards and special units placement (ICU, ETU,HDU)</b>
3.) To be competent in providing nursing care for patients with communicable diseases	Nursing management of patients with communicable diseases 3.1 Skills in caring for patients with infected diseases 3.1.1 Respiratory diseases- Pneumonia, Tuberculosis 3.1.2 GI tract diseases- hepatitis A, Diarrhoea 3.1.3 Vector born diseases -Dengue 3.1.4 Diseases spread through animals- Rabies, Leptospirosis 3.1.5 Sexually Transmitted Diseases- HIV /AIDS 3.1.6 Diseases spread by direct contact- Chickenpox 3.1.7 Diseases transmitted through blood or body fluids- Hepatitis B	In practice/ Bedside/ Clinical Teaching	<b>Medical wards and special units placement (ICU,HDU) STD and Chest Clinic)</b>  <b>Visit to IDH</b>
4.) To be competent in pain management of patients	Nursing management of patients in pain 4.1 Skills in: Pain assessment 4.2 Skills in pain management of patients	In practice/ Bedside/ Clinical Teaching	<b>Medical wards and special units placement (ICU, ETU, Cancer Unit)</b>
5.) To be competent in management of	Nursing management for patients with respiratory disorders Skills in:	In practice/ Bedside/ Clinical Teaching	<b>Medical wards and special units placement</b>

<p>patients with respiratory disorders</p>	<p>5.1 Administering oxygen via  a. Nasal catheter  b. Face mask  c. Venturi masks  d. Tracheostomy tube</p> <p>5.2 Nebulization  5.3 Metered dose inhalers  5.4 Adjustments of airway/ ventilation and oxygenation  5.5 Care for a patient on a mechanical ventilator  5.6 Assisting in investigations related to the respiratory disorders</p>		<p>(ICU/  ETU/CCU/OPD)</p>
<p>6.)To be competent in providing nursing care for patients with cardiovascular disorders</p>	<p>Nursing management of patients with cardiovascular disorders  Skills in:</p> <p>6.1 Principles of management of patients with cardiovascular emergencies &amp; CPR  6.2 Assisting in arterial blood gas analysis  6.3 Essentials of ACLS (Basic &amp; Advanced Cardiac Life Support)  6.4 Defibrillation  6.5 Intensive monitoring techniques/ therapeutic technique  6.6 Cardiac resuscitation  CPR Hands on skills  <b>6.7</b> Assisting in investigations related to the Cardiovascular disorders</p>	<p>In practice/  Bedside/<b>Clinical Teaching</b></p> <p>Skills Lab</p>	<p><b>Medical wards and special units placement (ICU/ETU/CCU/OPD)</b></p> <p><b>02 ½</b></p>

7.) To be competent in providing nursing care for patients with gastrointestinal disorders	Nursing management of patients with gastrointestinal disorders Skills in : 7.1 Managing Nasogastric tubes 7.2 Managing Naso-enteric Feeding by Continuous Controlled Pump 7.3 Skills in administering bowel wash	In practice/ bedside/ Clinical Teaching	<b>Medical wards and special units placement (ICU)</b>
8.)To be competent in applying Advance Nursing Skills for adult and older patients	Skills in administering parenteral medication/ injections  8.1 Intra Muscular (IM) 8.2 Intra Dermal (ID) 8.3 Subcutaneous (S/C)	Demonstration- Skills Lab / Return Demonstration	<b>05</b>
	<b>Total (Skills lab + Practice) hours</b>		<b>(7.5+ 187.5)= 195</b>

### Clinical placements

This is a combined clinical rotation with Surgical Nursing 1 (375hours)

Total medical nursing clinical practice: 187.5 hours Within:

Clinical placement I – Surgical/Medical wards – (10 hours per week for 5 weeks)

Clinical placement II – Operating Theatre + CSSD – (40 hours per week for 4 weeks)

Clinical placement III – Cancer Institute – 1 week (40 hours)

Clinical placement IV - Surgical/Medical wards – (10 hours per week for 4weeks)

Clinical placement VI – MICU/SICU – (15 hours per week for 2week)

Clinical placement VII - Surgical/Medical wards – (15 hours per week for 5 weeks)

Teaching / Learning Activities: Skills lab demonstrations and re-demonstrations,  
Clinical teaching, case studies and case analysis, student supervision, clinical assignments,  
Nursing care plans

**Assessment:**

BSc. Nursing Part II examination

Theory: MCQ 30+ SEQ 03

Practical: OSPE 4+ OSCE 2

Clinical skills assessment

**Reading materials**

Smeltzer, S.C., Bare, B.G. (latest edition) Brunner and Suddarth's textbook of Medical Surgical Nursing, Latest Edition, Philadelphia: J.B. Lippincott.

Scherer, J.C., & Timby, B.K. (latest edition). Introductory Medical-Surgical Nursing. Philadelphia: J.B. Lippincott.

Swearingen, P.L., & Ross, D.G. (1999). Manual of Medical-Surgical Nursing care: Nursing interventions and collaborative management (latest edition). St. Louis : Mosby

Thelan, L.A., Urden, L.D., Lough, M.E., & Stacy, K.M. (latest edition). Critical care nursing: Diagnosis and management (3rd ed.). St. Louis : Mosby.

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