



C

U

R

R

I

Rawalpindi Medical University  
**Diploma Program  
of Family Medicine**

C

U

L

U

M

## Message of The Vice Chancellor

It is indeed a matter of great pleasure that the Department of Family Medicine, Rawalpindi Medical University is going to commence the Diploma program for family physicians. This is one of the many initiatives that Rawalpindi Medical University has taken to promote medical education and Continuous Professional Development (CPD) of our doctors both working in public and private healthcare settings.



It is of prime importance for the family physicians to keep pace with the recent advancements in medical field and this diploma program will provide a broad framework for general physicians to enhance their diagnostic and managerial competencies pertinent to the most commonly encountered healthcare problems of this region. Lastly,

I congratulate my faculty for their untiring efforts in designing this course and wish them all the best for the success of this course which will ultimately be beneficial for the community.

**Prof. Dr. Muhammad Umar, Sitara-i-Imtiaz, Hilal-i- Imtiaz**

MBBS, MCPS, FCPS, FRCP (Glasg), FRCP (London), FACG (USA), AGAF (USA)

**Vice Chancellor & Chief Executive**

Rawalpindi Medical University / Allied Hospitals Rawalpindi

Chairperson & Professor of Medicine, Rawalpindi Medical College, Rawalpindi Chief Gastroenterology & Hepatology Division, Holy Family Hospital, Rawalpindi Chairman Asia Hep Pakistan

Governor American College of Gastroenterology (ACG) Past President Past Society of Gastroenterology President, Pakistan Society of Hepatology President Rawalians' Research Forum

## Foreword

Postgraduate Diploma in Family Medicine is a new postgraduate program offered by Rawalpindi Medical University, Rawalpindi. This name is well recognized and established for the last many decades world wide. The learning objectives of this diploma course were designed following a need assessment and a valid syllabus was chosen. It is mandatory to complete all modules of the course to receive the qualification of Postgraduate Diploma in Family Medicine.

This program is structured to include lectures and relevant workshops for development of a sound basis for Family Medicine through feasible contact sessions. Rawalpindi Medical University is committed to providing full support for the implementation of this course by allocating necessary resources, providing faculty development, and establishing a monitoring system with an aim to take it to next level to meet with the international standards.

An Expert Committee for Diploma in Family Medicine was formed.

The Chairperson of this Advisory Committee is Prof. Muhammad Umar, Vice Chancellor of Rawalpindi Medical University. The members of this committee are as follows:

1. Dr. Sadia Azam Khan, Assistant Professor and HOD of Family Medicine, RMU
2. Dr. Neelum Ali, Coordinator Diploma Program
3. Dr. Rizwana Shahid, Assistant Professor, Community Medicine, RMU
4. Dr. Zahid Rafiq, Family Physician, Canada

This advisory committee not only worked responsibly in designing the curriculum of diploma in Family Medicine following the identification of needs of the community but also worked meticulously for its launching, implementation and execution. Dr. Arsalan Manzoor was instrumental in designing assessment.

The Chairperson of Content Approval Committee is Prof. Muhammad Ajmal, who is Dean of ENT & Ophthalmology as well as Chairperson of PGME Committee at RMU.

The untiring efforts of the whole team towards the commencement of this Diploma program at Rawalpindi Medical University are worth mentioning. I congratulate them for their commitment and dedication in this regard. I wish that all primary healthcare providers of Pakistan in the near future would be trained family physicians for a healthier nation.

**Dr. Rizwana Shahid**

Assistant Director,  
Department of Medical Education.

## Preamble

It gives me a great pleasure to announce the launching of Postgraduate Diploma in Family Medicine at Rawalpindi Medical University, Rawalpindi. Rawalpindi Medical University is a well- recognized and rapidly progressing medical university which recently made a landmark achievement by securing first position in the IMPACT International Rankings.

***Family Medicine is the foundation pillar of Health Care System. Structured Training of Family Physicians leads to early diagnosis, prompt treatment and timely referrals. This leads to reduced patient morbidity and mortality. The aim of this program is to provide structured training in major clinical disciplines to enhance the clinical knowledge and skills of practicing family practitioners and improve the standards of health care.***

The program will endeavor to equip the trainees in mainly 6 competence areas defined by ACGME that a family physician needs to master; these include Patient Care, Medical Knowledge, System- based Practice, Practice-based Learning, Professionalism and Communication skills. Ultimately, after completing the Diploma, a Family Physician will act as a Family Medicine Expert, effective Communicator, Collaborator, Manager, Health advocate, Scholar and a true Professional.

The curriculum has been devised to include a knowledge component and a practical skills component. Knowledge will be imparted mainly through large group interactive sessions while skills will be mainly practiced during clinical rotations. Variety of teaching modalities including lectures, case based discussions, simulations, drills, grand rounds, workshops will be used.

The Face to face interactive sessions will be conducted with simultaneous zoom sessions to allow international candidates to be included in the Program. The Curriculum also includes core elements of the role of family physician in building therapeutic relationships with patients and families, addressing patients' needs and expectations, professionalism, identification and management of acute and chronic illness, maternity care, and the care of hospitalized patients after discharge.

The program is designed in accordance with the modern principles of Medical Education. Participants as “Adult Learners” will be “able to identify their learning needs; hence self directed learning will be encouraged. It will allow flexibility in accommodating learning needs of trainees which can vary according to the health needs of the local population served.

The vision is to redesign family medicine residency training to prepare graduates to meet the health care needs of their patient populations and regional communities. Family physicians serve as personal physicians and as the patient's usual source of care, as recognized in historic documents that have defined the specialty's enduring role in the society as *the foundation of the health care system*.

Assessment will be structured in the course with emphasis on Formative Assessment during training. This will be conducted through a series of Quiz, MCQs, case Scenarios, case based discussions, MiniCEX, peer discussions, reflective entries, portfolio writings and will be followed by a Summative Assessment on completion of training.

The program will prepare candidates for career-long practice and serve as a bridging program for recent graduates and experienced practitioners in building satisfying career in the exciting and rewarding specialty of Family Medicine.

The untiring efforts of the whole team led by the dynamic leadership of Vice Chancellor Prof. Muhammad Umar have been phenomenal.

Finally, I admire the contributions of our Faculty and staff in supporting, strengthening and promoting Family Medicine as an emerging specialty in Pakistan.

**Dr. Sadia Azam Khan**

M.B.B.S, M.R.C.G.P UK, CCT, FCPS Equivalence,  
PMDC Certified in Palliative Care,  
UK (Merit) Master Trainer in Family Medicine, UHS  
**Program Director & Course Organizer,**  
Head of Department of Family Medicine,  
Rawalpindi Medical University.

## Table of Contents

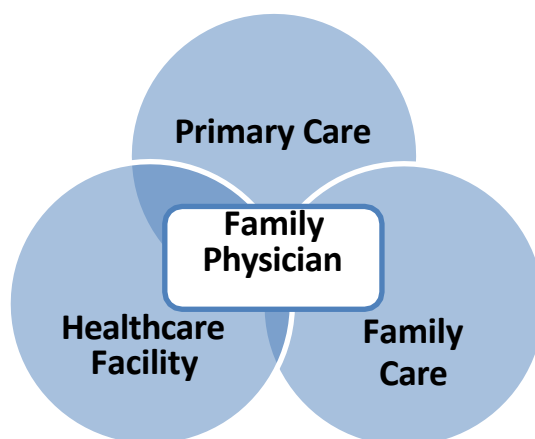
Message of The Vice Chancellor .....	i
Foreword .....	ii
Preamble .....	iii
Introduction.....	1
Current Needs & Challenges in Pakistan .....	1
Vision.....	2
Mission.....	2
Course Objectives .....	3
Core Competencies in Family Medicine.....	4
Introduction to the Curriculum .....	5
Competencies.....	5
General Learning Objectives .....	6
Program Specifications .....	7
Schedule of Family Medicine Diploma (2025-2026).....	8
Semester-I .....	8
Module 1: Principles Of Family Medicine .....	9
Case Scenario.....	10
Module 2: Cardiovascular .....	10
Case Scenario.....	11
Module 3: Infectious Diseases .....	13
Module 3: Infectious Diseases.....	14
Case Scenario.....	14
Module 4: Gastroenterology & Liver.....	16
Module 4: Gastroenterology & Liver.....	17
Case Scenario.....	17
Module 5: Respiratory.....	19
Case Scenario.....	20
Module 6: Musculo-Skeletal & Dermatology .....	20
Module 6: Musculo-Skeletal & Dermatology .....	21
Case Scenario.....	21
Module 6: Musculo-Skeletal & Dermatology .....	22
Case Scenario.....	22
Module 7: Neurology .....	23
Case Scenario.....	25

Module 8: Surgery & Urology .....	26
Case Scenario.....	28
Section-II.....	29
Semester-II.....	29
Module 9: Endocrinology.....	29
Module 9: Endocrinology.....	30
Case Scenario.....	30
Module 10: Mental Health.....	32
Case Scenario.....	33
Module 11: ENT & Eye.....	33
Case Scenario.....	34
Module 12: Orthopedics & Radiology.....	35
Module 13: Emergency Management.....	36
Module 14: Gynecology / Obstetrics & Pathology .....	37
Case Scenario.....	38
Module 15: Paediatrics .....	39
Case Scenario.....	40
Module 16: Research In Clinical Practice.....	41
SECTION-III .....	43
Assessment.....	43
Section- IV .....	45
Certification.....	45
Certification .....	45
References.....	46
Self-Directed Learning (SDI) Resources .....	46
Guidelines for prevention of Hepatitis A & E.....	46
Mandatory Textbooks .....	46
Learning Resources.....	47
Links For Audiovisual Self-Directed Learning.....	48
List Of Abbreviations.....	49

## Introduction

Family medicine is the medical discipline also known as a general practice, general medical practice, family practice, or primary care. It is a discipline which integrates several medical specialties into a new whole. It is concerned with the holistic approach to patient care in which the individual is seen in his totality and in the context of his family and community. The trainees in family medicine should be appropriately equipped to meet the contemporary and future health needs of individuals and families within their practice community. It is therefore indispensable to have acquisition of knowledge and skills in the major clinical disciplines with appropriate attitudes essential to the practice of the specialty.

Family Medicine Practice consists of three Core Areas as depicted below:



Family Physicians should be competent enough to work in a multi-disciplinary context in co-operation with non-professional community health workers in order to respond effectively to the health needs of the population.

There is a need to produce a critical mass of family physicians to bring quality health care closer to the people. Family physicians will provide health maintenance/promotion, disease prevention, basic medical, surgical, paediatric, obstetric and gynecological care within the community. The recent pandemic of COVID 19 has raised the need of a strong primary health care system and this course will go a long way to help this need of time.

## Current Needs & Challenges in Pakistan

The health services in Pakistan still face challenges as even serious patient cannot reach the tertiary care hospitals due to their limited resources. These limitations make Family Medicine even more important as a competent general physician is always needed in such cases to diagnose, treat and refer the patient to the higher facilities where needed. Family medicine itself is a unique specialty, as it takes care of the entire body as one unit with great emphasis on family, health promotion and disease prevention. General physicians getting trained in Diploma course will have broad exposure to the patients of all age groups and substantial experience in the management of diverse pathologic conditions. This includes theoretical and practical training in those conditions that are commonly encountered in primary care practice.



It will include a wide range of acute and chronic medical conditions of Family Medicine, preventive health care and ethical issues. Moreover, discussion on the cost and benefits of diagnostic tests, procedures and therapies will also be an integral part of this course. This course will provide an educational experience to the general physicians deemed necessary to provide comprehensive and coordinated care to the patients. Training will be conducted under the supervision of the trained faculty members in family Medicine and will include clinical rotations in respective specialties that will be monitored by the Department of Medical Education of RMU.

### **Vision**

Rawalpindi Medical University is a rapidly succeeding university with a broad vision to elevate the standards of healthcare. The diploma program is also part of the same endeavor. RMU is starting this program to enhance the competency of general physicians. This program is intended to emphasize on clinical experience and professional development regarding the commonest ailments of our nation. General physicians are expected to acquire knowledge and skills along with the development of appropriate attitude and behavior throughout their training program.

Rawalpindi Medical University is committed to provide full support for the implementation of the program by allocating necessary resources, promoting faculty development and establishing an ample monitoring system to meet with the international standards.

### **Mission**

To produce competent family physicians adequately equipped with the knowledge, skills and attitudes deemed necessary to meet the healthcare needs of the community and play a fundamental leadership role in the provision of comprehensive healthcare services.



***Department of Family Medicine, New Teaching Block, RMU***

## Course Objectives

*On completion of Diploma in Family Medicine, the participants should be able to:*

1. Practice competently in the field of Family Medicine at the levels of primary care, family care and institutional care
2. Apply the principles of health promotion and disease prevention as integrated components of healthcare
3. Practice family medicine with prime focus on the health needs of our patient populations
4. Work in multi-disciplinary context in cooperation with allied-professionals and community health workers in order to respond effectively to people's healthcare needs
5. Undertake diagnosis and initial management of all medical and surgical emergencies ensuring safe transportation of patients to the hospital as needed
6. Apply their clinical knowledge, clinical skills and good communication skills in the best interest of the patients
7. Manage common community / public health problems
8. Refer patients appropriately to secondary and tertiary healthcare facilities, recognizing the limitations of Primary Health Care (PHC)
9. Provide leadership to the other health workers for effective service delivery
10. Coordinate health care services and programs at all levels of care
11. Manage health resources and institutions for efficient service delivery
12. Prevent locally endemic diseases and promote health
13. Practice Evidence based Medicine and keep themselves updated with latest guidelines
14. Play appropriate role in the national and international system of disease surveillance and monitoring
15. Undertake health research under available resources and opportunities

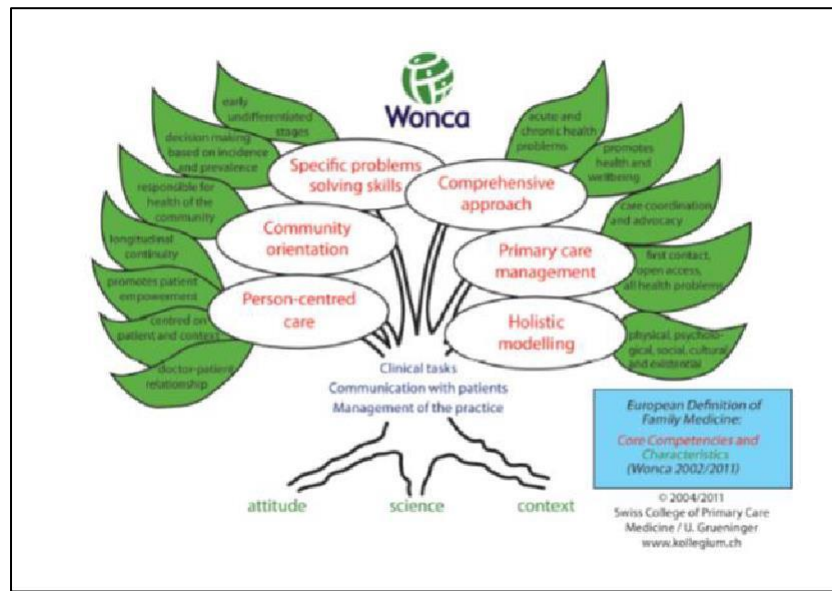
## Core Competencies in Family Medicine

Family practice is characterized by eight different attributes, namely the provision of general, first contact, continuous, comprehensive, coordinated and collaborative care with orientation towards the family and the community. WONCA defined six main competencies that a general practitioner/family physician has to master (figure 1). These competencies include the following: Primary care management, person-centered care, specific problem solving skills, comprehensive approach, community-orientation and holistic approach. These competencies cover the main characteristics of the discipline of family practice; namely:

1. Acting as first point of contact in the health care system, dealing with all health problems of the individuals regardless of their age and sex.
2. Coordinating care of people with other specialists, professionals and health care resources in an efficient way, taking an advocacy role for the patient when needed.
3. Developing a person-centered approach that is oriented to the individual within the context of his/her family and community.
4. Promoting patient empowerment.
5. Providing longitudinal continuity of care depending on the needs of the patient.
6. Applying decision-making process for maintaining health and wellbeing of the people as determined by the prevalence and incidence of the illness in the community.
7. Managing both acute and chronic health problems of individual patients.
8. Managing illnesses presenting in an undifferentiated way namely at an early stage of their development.
9. Promoting health and wellbeing and preventing diseases through appropriate effective interventions.
10. Assuming specific responsibility for the health of the community.
11. Adopting holistic approach for health problems incorporating physical, psychological, social and cultural dimensions.

A curriculum for training general practitioner/family physician is expected to facilitate acquisition of the above six main core competencies rooted and nurtured by the appropriate attitude, scientific basis and social context. The contextual features take into consideration the context of the physicians themselves (working conditions, community, culture, financial and regulatory frameworks); the attitudinal features cover the professional capabilities of the physicians in addition to the values and medical ethics of the profession; and the scientific features cover the application of a critical and research – based approach in practice through continuous learning and quality improvement.

It is worth noting that WONCA competencies are in line with those of the American Council for Graduate Medical Education (ACGME) and those of the College of Family Physicians of Canada for the specialty of Family Medicine. ACGME defines mainly 6 competencies that a family physician needs to master; these include: 1. Patient Care, 2. Medical Knowledge, 3. System-based Practice, 4. Practice-based Learning, 5. Professionalism, and 6. Communications. The Can MEDS for Family Medicine lists several competencies that the Family Physician needs to master in his/her role as: 1.Family Medicine Expert, 2.Communicator, 3.Collaborator, 4.Manager, 5.Health advocate, 6.Scholar and 7.Professional.



**Figure 1: European Definition of Family Medicine**

## Introduction to the Curriculum

The professional diploma in family medicine aims at equipping general practitioners with the knowledge, skills and attitudes that are needed to provide comprehensive, continuous and appropriate health care to individuals and families. The developed curriculum is mapped to the competencies of Family Medicine/General Practitioner doctor as defined by WONCA, ACGME and those of the College of Family Physicians of Canada for the specialty of Family Medicine.

### Competencies

- Maintain health and wellbeing of the population they serve.
- Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health in different settings.
- Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social- behavioral sciences, as well as the application of this knowledge to patient care.
- Exhibit the ability to investigate and evaluate the care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on continuous self-evaluation and life-long learning.
- Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.
- Show a commitment to carrying out professional responsibilities and an adherence to ethical principles.
- Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on Other resources in the system to provide optimal health care.

## General Learning Objectives

➤ **Program outcomes:** *At the end of the training, participants will be able:*

1. To adopt a bio-psycho-social model taking into account the cultural dimensions of Pakistan.
2. To emphasize the need for building an effective patient-physician relationship.
  - a) To adopt a person-centered approach in dealing with patients.
  - b) To act as advocate for the patient.
  - c) To involve patients as important stakeholders in decision-making and the management of their diseases.
3. To master effective and appropriate care provision and health service utilization.
  - a) To monitor, assess and improve quality and safety of population health, well-being and patient care.
  - b) To provide cost-conscious medical care.
  - c) To advocate for individual and community health and well-being.
4. To provide high quality sustainable and ongoing continuity of care as determined by the needs of the patient.
  - a) To manage and coordinate health and well-being of patients, their families and population at large through the concepts of health promotion, prevention, cure, care and palliation and rehabilitation.
5. To demonstrate high levels of medical professionalism in dealing with others.
  - a) To respect patient privacy and autonomy.
  - b) To demonstrate compassion and respect to others.
  - c) To demonstrate sensitivity to diverse population with no discrimination on the basis of gender, age, culture, ethnicity, religion, and disability.
6. To act as effective and trustworthy primary contact with patients that is responsive to their needs
  - a) To manage conditions that may present early and in an undifferentiated way.
  - b) To cover the most common health conditions prevalent in primary care.
7. To adopt evidence based clinical information management: selectively gather and interpret information from history-taking, physical examination, and investigations and apply it to an appropriate management plan in collaboration with the patient.
8. To use effectively and efficiently diagnostic and therapeutic interventions for patient care, as needed.
9. To refer the patients to other health professionals and specialists as needed, through a well- functioning, effective referral system.
10. To promote health and wellbeing of patients, families and community at large, by applying health promotion and disease prevention strategies appropriately.

**Program Specifications**

Attributes	Specifications
<b>Certificate Awarding Institute</b>	<ul style="list-style-type: none"> <li>• <b>Rawalpindi Medical University</b></li> </ul>
<b>Duration</b>	<ul style="list-style-type: none"> <li>• 1 year</li> <li>• Contact session 08am -02pm</li> <li>• Modified according to university activities and schedule</li> </ul>
<b>Course structure</b>	<ul style="list-style-type: none"> <li>• 2 semesters each comprising of 8 modules</li> <li>Pass percentage – 60%</li> </ul>
<b>Modules in Semester-I</b>	<ol style="list-style-type: none"> <li>1. Principles of Family Medicine</li> <li>2. Cardiovascular Disease</li> <li>3. Infectious Diseases</li> <li>4. Gastroenterology&amp; Liver</li> <li>5. Respiratory</li> <li>6. Musculo-skeletal &amp; Dermatology</li> <li>7. Neurology</li> <li>8. Surgery / Urology</li> </ol>
<b>Modules in Semester-II</b>	<ol style="list-style-type: none"> <li>9. Endocrinology</li> <li>10. Mental Health.</li> <li>11. ENT &amp; Eye</li> <li>12. Orthopedics/Radiology</li> <li>13. General Clinical Skills &amp; Emergency case Management</li> <li>14. Gynecology / Obstetrics</li> <li>15. Pediatrics</li> <li>16. Research in Clinical Practice</li> </ol>
<b>Admission Criteria</b>	<ul style="list-style-type: none"> <li>• MBBS/(1 Year of Medical experience)</li> <li>• Valid PMC Registration Certificate</li> </ul>
<b>Credit Hour</b>	<ul style="list-style-type: none"> <li>• 39 Hours</li> </ul>
<b>Training sites</b>	<ul style="list-style-type: none"> <li>• Rawalpindi Medical University, New &amp; old Teaching Block</li> <li>• Holy Family Hospital, Rawalpindi</li> <li>• Benazir Bhutto Hospital, Rawalpindi</li> <li>• DHQ Teaching Hospital, Rawalpindi</li> </ul>
<b>Teaching strategies</b>	<ul style="list-style-type: none"> <li>• Assignments, LGIS, bedside teaching, Demonstrations in skill lab, Case-Based Discussions, Videos</li> </ul>
<b>Mandatory Workshop</b>	<ul style="list-style-type: none"> <li>• ACLS/BLS</li> <li>• Communication Skill</li> <li>• Research Methodology</li> </ul>
<b>Clinical Rotations</b>	<ul style="list-style-type: none"> <li>• Family Medicine Clinic</li> <li>• Medicine &amp; Allied</li> <li>• Surgery &amp; Allied</li> <li>• Gynae/OBS</li> <li>• Pediatrics</li> </ul>
<b>Assessment</b>	<ul style="list-style-type: none"> <li>• Candidates will be assessed through formative assessment during the modules and through summative assessment at the end of the course.</li> </ul>

**Schedule of Family Medicine Diploma (2025-2026)**

Semesters	Modules
<b>SEMESTER 1</b>	Orientation session
	1.Principles of Family Medicine
	2.Cardiovascular module
	3.Infectious Diseases Module
	4.Gastrointestinal/ Liver Module
	5.Respiratory Module
	6.Musculoskeletal & Dermatology Module
	7.Neurology Module
	8.Surgery& Urology Module
<b>SEMESTER 2</b>	9.Endocrinology Module
	10.Mental Health Module
	11.ENT & Eye Module
	12.Orthopedics and Radiology
	13. Emergency Care
	14.Gynaecology / Obstetrics
	15.Pediatrics Module
	16.Research in Clinical Practice
	Clinical Grand Round
	Final Assessment

**SECTION-I****Semester-I**

- Principles of Family Medicine
- Management Course
- Cardiovascular Module
- Infectious Diseases Module
- Gastroenterology & Liver
- Respiratory Module
- Musculoskeletal & Dermatology
- Neurology Module
- Surgical/Urology Module



**Module 1: Principles Of Family Medicine****Module Incharge:** Dr. Sadia Azam Khan**Coordinator:** Dr. Neelum Ali**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assessment tools
Prevention and Screening of diseases	At the end of session students should be able to; 1. Appraise preventive aspects of Global burden of diseases 2. Apply levels of prevention against common diseases 3. Describe concept of screening 4. Elaborate validity of screening tests results in disease prevention & control 5. Assess patients & clients for screening against 6. common diseases of the region	LGIS, SGD		Family Medicine		Park's textbook of Preventive & Social medicine	MCQs, SEQs
Ethics & Professionalism  A. Workshop on Professionalism & communication skill	At the end of workshop participants should be able to: 1. Define Professionalism 2. Discuss the social contract of the medical profession 3. Link professionalism values to specific behaviors 4. Describe significance of communication in professional 5. Develop emotional intelligence 6. Manage time effectively 7. Cope with stress	Workshop		Family Medicine		ABC of learning and Teaching in medicine	Role play /SGD
Ethics & Professionalism  A. Workshop on Professionalism & communication skill	At the end of workshop participants should be able to: 1. Define a Consultation 2. Elaborate Consultation Models 3. Communication Skills 4. Recognized significance of communication skills in Family Practice 5. Apply Ethics in Family Practice	Workshop		Family Medicine		ABC of learning and Teaching in medicine	Role play /SGD



**Case Scenario****Topic: Prevention and Screening of diseases**

Department of Public health is operational in the city with a goal to reduce the burden of disease. A Public health team included a General Physician who is running a clinic in a highly populated area of the city to “estimate” the prevalence of diabetes in that area. They select a screening test which was highly sensitive but moderately specific. Tests were offered to all “eligible” patients and also to their attendants visiting that clinic. There was high “yield” of the applied test but a good number of screens in whom test results were eventually found negative were annoyed with their doctor.

- What would be the preventable burden of diseases in the regional context?
- How diseases can be controlled & prevented? Elaborate in terms of levels of prevention.
- What is role of screening in disease prevention & control?
- What are the problems associated with a highly sensitive screening test giving false positive results and highly specific but with false negative tests results?
- What are common screen able conditions and their screening tests?

**Module 2: Cardiovascular****Module Incharge:** Dr. Sadia Azam Khan**Coordinator :** Dr. Neelum Ali**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assess Ment tools
Chest pain	At the end of session students should be able to; 1. Approach to a patient with chest pain 2. Assess and manage the patients at initial stage 3. Monitor the patients in long term	LGIS, CBD, Video		Cardiology		Oxford hand book of GP	MCQs, SEQs, OSCE
Hypertension	At the end of session students should be able to; 1. Monitor BP 2. Enlist guidelines for management of HTN 3. Enumerate complications of HTN 4. Do CVD Risk Assessment	LGIS, CBD, Video		Cardiology		Oxford hand book of GP	MCQs, SEQs, OSCE
Heart failure	At the end of session students should be able to; 1. Enlist causes of heart failure 2. Enumerate types of heart failure 3. Elaborate stages of heart failure 4. Describe management & complications of heart failure	LGIS, CBD, Video		Cardiology		Oxford hand book of GP	MCQs, EQs, OSCE

BLS	At the end of workshop participants should be able to; 1. Recognize the severe life threatening emergencies 2. Provide CPR 3. Use an AED 4. Relieve choking in a safe, timely and effective manner 5. Interpretation of ECGs	Workshop		Cardiology		American Heart Association (AHA) BLS Manual	MCQsOSE
Metabolic Syndrome	At the end of session students should be able to; 1. Define Metabolic syndrome 2. Identify risk factor 3. Recognized the clinical features 4. Interpret relevant investigation 5. Outline the complications 6. Counsel patients on prevention and management	LGIS, CBD, Video		Cardiology		Oxford hand book of GP	

## Case Scenario

### Topic: Chest pain

- 45 yrs old gentleman an office executive with very long working hours, smoker, presented in your clinic with complaints of episodes of dizzy spells, which have worsened over the last one week. On examination he has BMI of 25. Pulse 88beats/min regular, BP 150/90mmHg. He is suffering from emotional stress these days as his younger brother died three weeks ago with Acute Extensive Anterior wall MI as a complication of Diabetes. He does not give history of breathlessness as such, however, on probing he admits to experiencing un-proportional breathlessness on effort with palpitation and retrosternal burning, especially when he has to walk at a faster pace or has sometimes to climb the stairs to his office when the lift is not operational. How will you proceed?
- 36yrs old lady known diabetic for the last 5yrs presents to your clinic for routine management for diabetes. Her BP is maintained on 140/90 for the last few visits without medication. How will you proceed?

### Topic: Hypertension

- 60 year old male with no pre-morbid presented to you with severe headache. His blood pressure is 180/100mmHg. Blood random sugar is 250mg/dl. Pulse rate is 90 beats per min. Respiratory rate is 12 breaths per min. Systemic examination is unremarkable. How will you proceed?
- A 40 year old male known hypertensive and smoker presented to you for follow up. His BMI is 28kg/m<sup>2</sup>, Blood pressure is 140/100, pulse rate is 80 beats per min regular. He is afebrile. Systemic examination is unremarkable. How will you manage the case?
- A 30 year old pregnant female with gestational age of 26 weeks presented to you with headache and vertigo. On vital examination her blood pressure is 160/100 in left arm in supine position. , Blood pressure is 140/100; pulse rate is 80 beats per min regular. Afebrile Systemic examination is unremarkable. How will you manage her?

### Topic: Heart failure

1. A 60 year male known diabetic and hypertensive diagnosed case of ischemic dilated cardiomyopathy presented to you with complaints of shortness of breath NYHA IV along with 2 days history of burning micturation, urgency and increased frequency. He is taking tab Aspirin 75mg OD, tab spiromide 40mg OD, tab lisinopril 5mg OD and tab Bisoprolol 2.5mg OD. On examination his BP is 90/60 mmHg, pulse rate is 112/min regular respiratory rate is 28/min, temperature is 100 F. He has bilateral fine crepts at bases. His first and second heart sounds are of normal intensity How will you proceed?
2. A 65 year old male known hypertensive, dilated cardiomyopathy with EF 30 – 35% presented to you with complaints of shortness of breath NYHA IV, orthopnea, paroxysmal nocturnal dyspnea and bilateral pedal edema. He is poor compliant with treatment. His BP is 85/60 mmHg, pulse rate is 106/min respiratory rate is 28/min, temperature is 98.6 F. He has bilateral fine crepts at bases. His first and second heart sounds are of normal intensity His ECG shows bigeminy. How will you investigate and proceed?

**Topic: Metabolic Syndrome**

Patient: Mr. Ali Khan, 52 years old Occupation: Office worker

Presenting Complaint: Routine follow-up for hypertension

**History:**

- Diagnosed with hypertension 3 years ago, on amlodipine 5 mg daily
- Recently noted increased fatigue and occasional headaches
- Weight gain of 6 kg over the past year
- Sedentary lifestyle, minimal physical activity
- Diet: high in refined carbs, frequent consumption of sugary drinks.
- Family history of type 2 diabetes (mother) and heart disease (father)

**Examination:**

- BMI: 31 kg/m<sup>2</sup>
- Waist circumference: 106 cm
- Blood Pressure: 148/92 mmHg
- No peripheral edema or signs of organ damage

**Investigations:**

- Fasting blood glucose: 124 mg/dL
- HbA1c: 6.2%
- Triglycerides: 210 mg/dL
- HDL cholesterol: 38 mg/dL
- LDL cholesterol: 130 mg/dL

**Teaching Objectives Based on the Case:**

1. Identify diagnostic criteria of metabolic syndrome in this patient.
2. Discuss risk factors and contributing lifestyle behaviors.
3. Outline a management plan including lifestyle, pharmacological, and follow-up components.
4. Role-play a patient counseling session focusing on motivation and education.

**Module 3: Infectious Diseases****Module Incharge:** Dr. Sadia Azam Khan**Coordinator :** Dr. Neelum Ali**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assessment tools
Dengue(VHF) Malaria	At the end of session students should be able to; 1. Manage a case of dengue 2. Manage a case of Malaria	LGIS, CBD, Video		Infectious Diseases		Oxford Textbook of Medicine	MCQs , SEQs, OSCE
Diphtheria	At the end of session students should be able to; 1. Manage a case of Diphtheria	LGIS, CBD, Video		Infectious Diseases		Oxford Textbook of Medicine	MCQs , SEQs, OSCE
Seasonal flu, Influenza H1N1, COVID 19	At the end of session students should be able to; 1. Diagnose and manage common infections presenting in the community including Flu & COVID 19.	LGIS, CBD, Video		Infectious Diseases		Oxford Textbook of Medicine	MCQs , SEQs, OSCE
Typhoid, Tuberculosis,	At the end of session students should be able to; 2. Manage and care the relevant diseases	LGIS, CBD, Video		Infectious Diseases		Oxford Textbook of Medicine	MCQs , SEQs, OSCE
HIV & STI	At the end of session students should be able to; 3. Manage and care the relevant diseases 4. Counseling and prevention	LGIS, CBD, Video		Infectious Diseases		Oxford Textbook of Medicine	MCQs, SEQs, OSCE
Zoonotic infections (Helminthes Infestation, Insect bites & Sting, Snake bite, Animal bite)	At the end of session students should be able to; 1. Manage and care the common zoonotic infection	LGIS, CBD, Video		Infectious Diseases		Oxford Textbook of Medicine	MCQs , SEQs, OSCE

**Module 3: Infectious Diseases****Case Scenario****Topic: Dengue**

26 year old male, Rashid, Labourer by profession, resident of Tarnol, Islamabad, with no comorbidities, presented to the Emergency Department with a 4 day history of a sudden onset high grade intermittent fever, documented at 104 F. The fever is associated with severe headache, pain behind his eyes, severe muscle aches and a severe backache. He also complains of severe generalized abdominal pain and vomiting upon any kind of oral intake and hasn't passed urine since early in the day. On Examination his mucosal membranes are dry and there are multiple bruises on his arms and legs. Vitals are as follows: BP 100/70, Pulse 84, Temp 101F, Respiratory rate 22. CBC showed WBC 1.7, Hb 12.4, Hct 45.5, and Platelets 24. On Ultrasound there was a streak of pericholecystic fluid.

**Topic: Malaria**

43 year old female, Shahnaz, hypertensive house wife and mother of 3, from Rawalpindi, presented to the ER with a 12 days history of recurrent fever spikes followed by rigors and chills with profuse sweating. She also complains of a severe headache, myalgia, fatigue, loose stools and dark colored urine. On Examination there is jaundice of the eyes. Ultrasound reports an enlarged spleen. CBC shows WBC 10.3, Hb 9.6, Hct 27.6, Platelets 68, Total Bilirubin 4.6, Urea 24, Creatinine 1.1, Na 132, K 4.9, Cl 110.

**Topic: H1N1 Influenza**

67 year old Male, Khalid, Hypertensive and Diabetic, Resident of Karachi, having just returned from Umrah, presented to the Accident & Emergency department with a 3 day history of a high grade continuous fever with chills associated with a nonproductive cough with a headache and severe body aches along with a 1 day history of sudden onset SOB and severe chest discomfort. There was no associated flu like symptoms. O2 Saturation was 82% on room air. Blood Tests showed WBC 3.2 Hb 12.6 Platelets 149, Total Bilirubin 1.4, Urea 45 Creatinine 2.1 CRP 23. Chest X-ray showed diffuse patchy infiltration.

**Topic: COVID-19**

A diabetic patient has presented with loss of sense of smell, loss of taste, high grade fever, chills, severe body aches and cough for the last 2 days. He has recently arrived from the United Kingdom 2 days back?

1. What are the differential diagnoses?
2. How you will investigate this case?
3. How you will give instructions for home isolation.
4. How you will investigate the contacts.
5. How you will treat this case

**Topic: Tuberculosis**

Patient Name: Muhammad Yasin Age: 45 years

Gender: Male

Occupation: Rickshaw driver

Residence: Urban slum area, lives in a small, overcrowded house

Chief Complaint: Persistent cough for 4 weeks, blood-tinged sputum, and weight loss

**History of Present Illness:**

Muhammad Yasin presents with a 4-week history of persistent cough, low-grade evening fevers, night sweats, and unintentional weight loss of around 5 kg over the past two months. He reports increasing fatigue and shortness of breath. Recently, he noticed blood streaks in his sputum.

**Past Medical History:**

- No known chronic illnesses
- No prior history of TB
- Not vaccinated with BCG (according to patient)

**Social History:**

- Smoker (1 pack/day for 20 years)
- Lives with wife and 3 children in a single-room dwelling
- One of his children had a prolonged cough recently

**Examination Findings:**

- Temperature: 37.8°C
- Respiratory rate: 20/min
- Auscultation: Crackles and bronchial breath sounds in the upper right lung zone
- Mild pallor noted, no lymphadenopathy

**Questions:**

1. What is the diagnosis?
2. What are the investigations ordered?
3. What is the treatment plan?

**Topic: STI**

Patient Name: Ayesha Bano Age: 26 years

Gender: Female

Marital Status: Married, 2 years Occupation: School teacher

**Chief Complaint:**

Painful genital ulcers and vaginal discharge for the past 5 days

**History of Present Illness:**

Ayesha presents with complaints of burning pain during urination, genital ulcers, and thick yellowish vaginal discharge. She reports the symptoms started 5 days ago, with increasing discomfort during urination and intercourse. No fever or systemic symptoms. She had unprotected intercourse with her husband 2 weeks ago.

**Past Medical History:**

- No known chronic diseases
- No prior similar episodes
- Not on any regular medication
- No known drug allergies
- Social/ Sexual History:
  - Monogamous, but she suspects her husband may have other partners
  - No use of condoms
  - Not on contraception
  - No history of recent travel

**Examination Findings:**

- Two shallow, painful ulcers on the vulva
- Swollen, tender inguinal lymph nodes
- Thick, yellow vaginal discharge
- No fever, vital signs normal

**Questions:**

1. What is the provisional diagnosis?
2. What are the investigation ordered?
3. What is the management plan?

**Module 4: Gastroenterology & Liver****Module Incharge:** Dr. Sadia Azam Khan**Coordinator :** Dr. Neelum Ali**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assessment tools
Liver diseases	At the end of session students should be able to; 1. Enlist causes of acute and chronic liver diseases 2. Diagnose the patients of Chronic Liver Disease & hepatitis 3. Outline management plan for patients with liver disorders 4. Refer the patients to gastroenterologist	LGIS, CBD, Video		Gastroenterology		Oxford Handbook of Gastroenterology & Hepatology	MCQs, SEQs, OSCE
Upper & Lower GI bleeding	At the end of session students should be able to; 1. Enlist causes of upper & lower GI bleeding 2. Diagnose the patients with G bleeding 3. Manage them accordingly 4. Refer the complicated cases to tertiary health center	LGIS, CBD, Video		Gastroenterology		Oxford Handbook of Gastroenterology & Hepatology	MCQs, SEQs, OSCE
Dyspepsia IBS IBD	At the end of session students should be able to; 1. Enlist causes of dyspepsia 2. Diagnose the patients of dyspepsia 3. Outline management plan 4. Diagnose and manage IBS, IBD	LGIS, CBD, Video		Gastroenterology		Oxford Handbook of Gastroenterology & Hepatology	MCQs, SEQs, OSCE

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assessment tools
Chronic abdominal pain	At the end of session students should be able to; 1. Enlist causes of chronic abdominal pain 2. Make differential diagnosis of chronic abdominal pain 3. Outline management plan for patients presenting with chronic abdominal pain 4. Refer the patients to tertiary health care facility	LGIS, CBD, Video		Gastroenterology		Oxford Handbook of Gastroenterology & Hepatology	MCQs, SEQs, OSCE
Constipation & Diarrhea	At the end of session students should be able to; 1. Enlist causes of constipation & diarrhea 2. Diagnose the patients suffering from constipation and diarrhea 3. Discuss the management of patients presenting with constipation and diarrhea	LGIS, CBD, Video		Gastroenterology		Oxford Handbook of Gastroenterology & Hepatology	MCQs, SEQs, OSCE

## Module 4: Gastroenterology & Liver

### Case Scenario

#### Topic: Liver Diseases

Patient is 19 years of age who presented to her physician's office with mild jaundice. The patient reports being in good health until a week before, at which time she began having flu-like symptoms of headache, low-grade fever, nausea, loss of appetite, and malaise. She self-treated the fever with acetaminophen. The symptoms persisted. Upon awakening this morning, she noticed that her eyes were yellow. She indicated that her urine has been darker than usual and she has been experiencing joint pain for the last three days. She also acknowledged that her stools have been lighter than usual. She therefore contacted her physician's office. Her labs are : Hematocrit (Hct) 40%, Hemoglobin (Hgb) 13.3mg/dl, White blood cell count 6200 cell/ul , Aspartate aminotransferase (AST) 323 Units/L, Alanine aminotransferase (ALT) 358 Units/L, Total bilirubin 3.7 mg/dL, HBsAg negative, HBsAb Positive, Alkaline phosphatase (ALP) 85 Units/mL, Prothrombin time (PT) 11.6 seconds, Albumin 3.8 mg/dL, Glucose 84 mg/dL.

- a) What is differential diagnosis?



- b) How will you further investigate the case?
- c) How will you manage this patient?

**Topic: Upper GI bleeding**

A 35 years old female, presenting to Emergency Department with history of hematemesis of fresh blood twice in the past 3 hours. She feels light headedness and her blood pressure is 80/50, her pulse is 110/minute. She gives history of ibuprofen for 2 weeks now for back pain. Examination reveals that she appears anxious and somewhat restless. Facial pallor and cool, moist skin are noted. No telangiectasia of the lips or oral cavity is noted. Abdominal examination is unremarkable. Her labs are : Hemoglobin 9gm/dL, Hematocrit 27%, MCV 90. WBC 13,000/mm. PT/PTT - normal. BUN 45mg/dL, Creatinine 1.0 mg/dL. Chest X-ray - normal.

- a) What is the initial management?
- b) What could be the causes of UGI bleed in this patient?
- c) How will you assess the prognosis and mortality of UGI bleed patients?
- d) Topic: Lower GI bleeding

29 years old Female reported several months of diarrhea and general malaise. She has had 6 – 8 loose to watery stools daily. She denies hematochezia or melena. She endorses increased fatigue and lethargy. Her appetite had been poor and she thought she had lost 10-12 lb. She also reports intermittent joint pains, particularly in her knees. She denies fever, but has had night sweats on several occasions. She denies palpitations, increased hunger or tremor. On examination temperature was 37.8°C. Abdominal examination notable for right lumbar quadrant tenderness. Examination of her knees was normal. Stool tests: WBC seen, positive FOBT, no ova, cysts or parasites, negative bacterial cultures.

Labs: Hct 32, WBC 13.5, ESR 38, CRP 21.2 What is differential diagnosis?

- a) How will you further investigate this patient?
- b) How will you manage this patient?
- c) What are extra intestinal manifestations of Irritable Bowel Disease?

**Module 5: Respiratory****Module Incharge:** Dr. Sadia Azam Khan**Coordinator :** Dr. Neelum Ali**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assess ment tools
Lower Resp. tract infections (LRTI)	At the end of session students should be able to; 1. Enlist causes of Lower Resp. tract infections 2. Make differential diagnosis of lower resp. tract infections 3. Describe management plan for lower resp. tract infections 4. Refer the patients to pulmonologist	LGIS, CBD, Video		Pulmonology / Medicine		Davidson textbook of Medicine	MCQs, SEQs, OSCE
COPD	At the end of session students should be able to; Diagnose COPD and outline management plan	LGIS, CBD, Video		Pulmonology / Medicine		Davidson textbook of Medicine	MCQs, SEQs, OSCE
Asthma	At the end of session students should be able to; Diagnose and manage Asthma	LGIS, CBD, Video		Pulmonology / Medicine		Davidson textbook of Medicine	MCQs, SEQs, OSCE

**Case Scenario****Topic: Lower Respiratory Tract Infections (LRTI)**

A 17 years old boy presented with complaint of episodic shortness of breath and wheeze. Family history of allergic asthma is present. Clinical diagnosis of clinical asthma was made. What investigation you will do to confirm?

- CXR
- PEF monitoring
- Sputum for eosinophil
- Spirometry with reversibility
- Methacoline challenge test

**Topic: COPD**

A 65 years old male diagnosed as a case of group A COPD on the basis of history and investigation. What will be the first treatment option?

- Single bronchodilator
- Combination of bronchodilators
- Inhaled steroid
- Inhaled steroid and bronchodilator
- Inhaled steroid and Roflumilast

**Topic: Asthma**

A 10-year-old child with asthma has night-time symptoms three times a week and uses a salbutamol inhaler daily. What is the most appropriate next step in management?

- Continue current treatment
- Add a leukotriene receptor antagonist
- Increase inhaled corticosteroid dose
- Refer to a pulmonologist

**Module 6: Musculo-Skeletal & Dermatology**

**Module Incharge:** Dr. Sadia Azam Khan

**Coordinator:** Dr. Neelum Ali

**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assessment tools
Musculo-skeletal pain	At the end of session students should be able to; 1. Enlist causes of musculo- skeletal pain 2. Make differential diagnosis of musculo skeletal pain 3. Describe management plan 4. Illustrate when to refer the patient to rheumatologist	LGIS, CBD, Video		Rheumatology / Medicine		Guidelines	MCQs, SEQs, OSCE

Common skin problems (scaly erythematous plaque, Acne, Scabies, Dermatitis, Psoriasis)	At the end of session students should be able to; 1. Enlist causes of common skin problems 2. Classify the severity of skin disorders 3. Make differential diagnosis of common skin problems 4. Discuss the management plan 5. Refer the patients to the specialist if required	LGIS, CBD, Video		Dermatology		Oxford Handbook of Medical Dermatology	MCQs, SEQs, OSCE
Wounds and burns	At the end of session students should be able to; 1. Assess the depth and degree of burn 2. Illustrate referral criteria 3. Provide initial resuscitation 4. Manage small burns 5. Refer the patients accordingly	LGIS, CBD, Video		Plastic surgery		Oxford Handbook of Clinical Surgery	MCQs, SEQs
Basic Surgical Skills	At the end of workshop participants should be able to; 1. Identify the patients who need referral to tertiary care facility 2. Manage minor injuries 3. Perform minor suturing of the wound 4. Counsel a patient with minor injury	Workshop		General Surgery		Basic Surgical skills and Techniques by David Stoker	MCQs, SEQs

## Module 6: Musculo-Skeletal & Dermatology

### Case Scenario

#### Topic: Musculo-skeletal pain

##### 1. Approach to inflammatory Arthritis

A 30-years old lady who delivered her first baby six months back presented with complaint of pain, swelling and early morning stiffness (lasting till mid-day) involving small joints of her hands and feet for last 3 months. At first glance at your primary care clinic, you have noticed that she has multiple swollen hand joints.

- What relevant questions would you like to ask her in history and how will you proceed with her examination?
- How will you plan her workup to reach the diagnosis?
- What is your initial management plan and when will you refer the patient to specialist clinic?

##### 2. Psoriatic Arthritis

A 30 years old gentleman with presented with asymmetrical polyarthritis along with

pitting and ridging of nails and scaly skin lesions. What is the most likely diagnosis?

- a) Gout
- b) Rheumatoid arthritis
- c) Psoriatic arthritis
- d) Fibromyalgia
- e) Ankylosing spondylitis

### Topic: Common Skin Problems

#### 1. Approach to a patient with a scaly erythematous plaque

A 35 year old male, laborer by profession presents to you with a single itch plaque on dorsal surface of right forearm for 2 weeks. There is no previous history of any skin lesion. On examination, well demarcated scaly erythematous annular plaque 2×2cm on dorsal surface of right forearm was observed.

- a) What are the questions you would like to ask in history?
- b) What is your clinical diagnosis?
- c) Which investigations you would like to do?
- d) How will you treat him?
- e) When will you refer this patient to a dermatologist?

#### 2. Approach to a patient with acne

A 35 year old female presented with 1 month history of pimples on face. On examination, 2 papules, 3 pustules and 1 comedone were found on cheeks and bridge of nose.

- a) What questions you would like to ask in history?
- b) How will you grade acne?
- c) How will you treat her?
- d) When will you refer her to a dermatologist?

#### 3. Approach to a patient with melasma

A 25 year old married female presented with brown patches on cheeks for 6 months. On examination, symmetrical brown patches were present on apples of both cheeks.

- a) What questions you will ask in history?
- b) How will you grade it?
- c) How will you treat it?
- d) When will you consider referring to a dermatologist?

#### 4. Approach to a patient with scabies

A 15 year old boy presented with 1 week history of skin lesions with nocturnal itching. On examination, excoriated papules were found on hands, feet and trunk.

- a) Which questions are important in history?
- b) Which specific lesions will you look for and where?
- c) How will you treat him?
- d) When will you consider referring to a dermatologist?

## Module 6: Musculo-Skeletal & Dermatology

### Case Scenario

**Topic: Wounds & Burns**

1. The newly admitted client has burns on both legs. The burned areas appear white and leather-like. No blisters or bleeding are present, and the client states that he or she has little pain. How should this injury be categorized?
  - a) Superficial
  - b) Partial-thickness superficial
  - c) Partial-thickness deep
  - d) Full thickness
2. The newly admitted patient has a large burned area on the right arm. The burned area appears red, has blisters, and is very painful. How should this injury be categorized?
  - a) Superficial
  - b) Partial-thickness superficial
  - c) Partial-thickness deep
  - d) Full thickness
3. Which type of fluid should be given as fluid resuscitation during the emergent phase of burn recovery?
  - a) Colloids
  - b) Crystalloids
  - c) Fresh-frozen plasma
  - d) Packed red blood cells
4. All requires hospitalization except
  - a) 5% Burns in children
  - b) 10% Scald in females
  - c) Electrocution
  - d) 15% Deep burns in adults
5. A 40 years old male presented in emergency with 30% mix thickness burn. His body weight is 80 kg. How much fluid you will infuse in first 8 hours?
  - a) 3600 ml
  - b) 4600 ml
  - c) 6600 ml
  - d) 9600 ml

**Module Incharge:** Dr. Sadia Azam Khan**Coordinator :** Dr. Neelum Ali**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material/ reference of book	Assessm ent tools
CNS Tuberculosis & Meningitis	At the end of session students should be able to; 1. Identify the patients with CNS tuberculosis or Meningitis 2. Give symptomatic treatment to the patients 3. Refer such patients 4. to tertiary care facility	LGIS, CBD, Video		Neurology		Oxford Textbook of Neurology	MCQs, SEQs, OSCE
Stroke	At the end of session students should be able to; 1. Enlist common causes of stroke 2. Illustrate signs and symptoms of stroke 3. Localize the stroke lesion 4. Describe 5. supportive and definitive management of stroke 6. Elaborate the scales of stroke severity	LGIS, CBD, Video		Neurology		Oxford Textbook of Neurology	MCQs, SEQs, OSCE
Head injury	At the end of session students should be able to; 1. Diagnose the severity of injury among patients arriving with head injury 2. Manage the patients 3. Refer the patients to tertiary care facility if required	LGIS, CBD, Video		Neurosurg y		Oxford Textbook of Neurosurg ery	MCQs, SEQs, OSCE
Headache & its types	At the end of session students should be able to; 1. Manage and diagnose the Headache 2. Refer the Patient to tertiary care if required	LGIS, CBD, Video		Neurology		Oxford Textbook of Neurology	MCQs, SEQs, OSCE

Epilepsy and Seizures	At the end of session students should be able to; 1. Manage and diagnose Epilepsy and Seizures 2. Refer the Patient to tertiary care if required	LGIS, CBD, Video		Neurology		Oxford Textbook of Neurology	MCQs, SEQs, OSCE
-----------------------	--	------------------	--	-----------	--	------------------------------	------------------

## Case Scenario

### Topic: CNS Tuberculosis & Stroke

- 84 year old woman began to experience gait difficulty and vertigo since yesterday. She also complains that objects seemed to be jumping around. She is non-hypertensive non diabetic with no history of smoking and substances abuse. O/E she is well oriented and alert, her vitals are normal, fundoscopy is normal. Cranial nerves examination seems to be normal except for dysarthria, nystagmus on horizontal eye movements worsened on lateral gaze to either side. Finger nose test and heel shin test were impaired on left side. Gait was impossible with inability to even stand unassisted. What is the most likely diagnosis.
- 38 year old man brought to emergency room with history of sudden onset of severe thunder clap headache 06 hours back followed by loss of consciousness, Examination revealed severe neck stiffness with bilateral papilledema and sub-hyloid hemorrhages on fundoscopy.
- A young patient presents in emergency with sudden onset weakness of right half of body with difficulty in speech. O/E power in right upper limb is 2/5, right lower limb 4/5 with motor aphasia.

### Topic: Head Injury

A 25 years old male patient, falls from a height of 20 feet. He is brought to the emergency room in a semi- conscious state. First aid was given on the spot and has a bandage applied to his head. What steps should be followed by the treating doctor to successfully manage this patient.

### Topic: Headache

A 30-year-old man presents with recurrent, severe unilateral headaches with tearing of the eye and nasal congestion. What is the most likely diagnosis?

- Migraine
- Cluster headache
- Temporal arteritis
- Sinusitis

### Topic: Epilepsy

- A 22-year-old woman presents with episodes of blank staring and unresponsiveness lasting about 10–15 seconds. These occur multiple times a day. She has no postictal confusion. What is the most likely diagnosis?
  - Focal impaired-awareness seizure
  - Generalized tonic-clonic seizure
  - Absence seizure
  - Psychogenic non-epileptic seizure



2. A 35-year-old man has recurrent seizures characterized by an aura of a rising abdominal sensation, followed by lip-smacking and hand automatisms. He is confused for several minutes afterward. Which lobe of the brain is most likely involved?
- Occipital lobe
  - Temporal lobe
  - Frontal lobe
  - Parietal lobe

## Module 8: Surgery & Urology

**Module Incharge:** Dr. Sadia Azam Khan

**Coordinator :** Dr. Neelum Ali

**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assessment tools
Limb Pain Varicose veins Leg ulceration	At the end of the session students should be able to; 1. Enlist causes of Acute and Chronic Limb pain 2. Enlist differential diagnosis of 3. Limb Pain Outline management plan for 4. Limb Pain and refer appropriately 5. Diagnose and assess Varicose veins and Leg Ulcers	LGIS CBD, Video		Surgery Department			MCQs, SEQs, OSCE
Acute Abdominal pain, Abdominal swelling, Cancer, Anal Conditions,	At the end of session students should be able to; 1. Assess and Manage common surgical problems ➤ Appendicitis ➤ Inflammatory bowel disease ➤ Diverticular disease ➤ Intestinal obstruction ➤ Adhesions ➤ Abdominal hernias ➤ Peritonitis ➤ Intestinal perforation ➤ Benign and Malignant hepatic, gall bladder and pancreatic disease ➤ Haemorrhoids and perianal disease Discuss the management plan of the above conditions Diagnose and Manage	LGIS, CBD, Video		Surgery		Oxford Handbook of Surgery	MCQs, SEQs, OSCE

Breast Lump	At the end of session students should be able to; 1. Diagnose Benign and Malignant breast lumps 2. Manage Mastitis and Breast Abscess 3. Refer Breast Lumps appropriately	LGIS, CBD, Video		Surgery		Oxford Handbook of Surgery	MCQs, SEQs, OSCE
-------------	--	------------------	--	---------	--	----------------------------	------------------

**Module Incharge:** Dr. Sadia Azam Khan**Coordinator :** Dr. Neelum Ali**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assessment tools
Hematuria	At the end of session students should be able to; 2. Identify gross & microscopic hematuria 3. Suggest relevant investigations 4. Screen the patients for bladder cancer 5. Provide first aid 6. Refer the patient to tertiary care facility	LGIS, CBD, Video		Urology		Oxford Textbook of Urology	MCQs, SEQs, OSCE
Renal / Ureteric Colic	At the end of session students should be able to; 1. Diagnose ureteric colic 2. Differentiate renal pain from acute abdominal pain 3. Manage patients with acute colic 4. Recognize renal / ureteric stones 5. Refer the patients to tertiary care facility	LGIS, CBD, Video		Urology		Oxford Textbook of Urology	MCQs, SEQs, OSCE
Acute/ Chronic Kidney Disease	At the end of session students should be able to; 1. Differentiate acute / Chronic Kidney 2. Manage and refer the patient accordingly	LGIS, CBD, Video		Urology		Oxford Textbook of Urology	MCQs, SEQs, OSCE
Urinary Tract Infection (UTI)	At the end of session students should be able to; 1. Diagnose UTI 2. Treat uncomplicated UTI effectively enlist causes of UTI 3. Refer complicated cases of UTI to tertiary care	LGIS, CBD, Video		Urology		Oxford Textbook of Urology	MCQs, SEQs, OSCE

Prostate problem	At the end of session students should be able to; 1. Differentiate between BPH / Cancer 2. Manage and refer the patient accordingly	LGIS, CBD, Video		Urology		Oxford Textbook of Urology	MCQs, SEQs, OSCE
------------------	---	------------------	--	---------	--	----------------------------	------------------

## Case Scenario

### Topic: Renal / Ureteric Colic, Acute / Chronic Urinary Retention

1. A 38-year-old lady patient presents to the urology clinic with off-and-on flank pain. She is afebrile and has no other co-morbidities. On physical examination, she has slight flank tenderness. Routine laboratory investigations reveal Hemoglobin 12 g/dl, serum creatinine 0.9 mg/dl and multiple RBCs in urine. On Plain CT abdomen, there is a 25mm stone in the left kidney. What is the best course of management?
2. A 25-year-old woman presents to the emergency department with acute right lower quadrant pain. On examination, she is febrile having fever of 38.5°C, with chills and rigors, and has tenderness in the right flank. Her WBC count is 18000/mm<sup>3</sup>. Routine laboratory investigations show hemoglobin 12.5 g/dl, serum creatinine 1.2 mg/dl and numerous RBCs in urine. On non-contrast enhanced CT, a 12 mm mid-ureteric stone is found, causing hydro-nephroureter. What is the best course of management for this patient?
3. A 55-year-old man presented to urology clinic with painless gross hematuria and clots. He is a chronic smoker. He has a long history of sero-sanguinous umbilical discharge. Laboratory investigations show Hemoglobin 10.5 g/dl, Creatinine 1.1 mg/dl and multiple RBCs on urinalysis. Flexible cystoscopy was done and showed a bladder tumor, which was subsequently resected. What is the most likely histology?

### Topic: Prostate problem

1. A 68-year-old male presents with difficulty in urination, weak stream, and nocturia for the past 6 months. On digital rectal exam, the prostate is enlarged, smooth, and non-tender. PSA is 3.5 ng/mL. What is the most likely diagnosis?
  - a) Prostate cancer
  - b) Acute prostatitis
  - c) Benign prostatic hyperplasia (BPH)
  - d) Chronic pelvic pain syndrome
2. A 72-year-old man comes in with weight loss, back pain, and urinary hesitancy. On DRE, the prostate is hard and nodular. PSA is 98 ng/mL. What is the most likely diagnosis?
  - a) BPH
  - b) Prostate cancer with metastasis
  - c) Chronic prostatitis
  - d) Renal cell carcinoma

**Section-II****Semester-II**

- Endocrinology
- Mental Health
- ENT & Eye
- Orthopedics and Radiology
- Emergency Care
- Gynecology / Obstetrics & Pathology
- Pediatrics
- Research in Clinical Practice

**Module 9: Endocrinology****Module Incharge:** Dr. Sadia Azam Khan**Coordinator :** Dr. Neelum Ali**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assessment tools
Diabetes Mellitus	At the end of session students should be able to; 1. Elaborate diabetic mellitus 2. Diagnose the patients with diabetes mellitus 3. Illustrate management plan for diabetic patients 4. Recognize complications of diabetes 5. Refer the patients with diabetic complications to tertiary healthcare facilities	LGIS, CBD, Video		Medicine		Kumar & Clark	MCQs, SEQs, OSCE
Thyroid disorders	At the end of session students should be able to; 1. Enlist commonest thyroid disorders 2. Diagnose patients with thyroid disorders 3. Outline management plan for thyroid problems	LGIS, CBD, Video		Medicine		Kumar & Clark	MCQs, SEQs, OSCE

## Module 9: Endocrinology

### Case Scenario

#### Topic: Diabetes Mellitus

1. A 50 years old obese diabetic lady presents in diabetic clinic with complaint of hyperglycemia. She is taking metformin and sitagliptin in maximum dose. Her average BSR is 150 to 200mg/dl. What will be the next management step to control her blood sugar levels?
  - a) Sulfonylureas
  - b) GLP-1 agonist
  - c) Pioglitazone
  - d) Basal insulin
2. A diabetic patient on basal bolus regime presents with complaint of fasting hyperglycemia. In order to control BSF what will be appropriate next management step.
  - a) Stop basal insulin
  - b) Check BSR at 3 AM
  - c) Stop Pre-dinner bolus insulin
  - d) Add oral hypoglycemic at night

#### Topic: Thyroid Disorder

1. A 60-year-old woman presented with cold intolerance, fatigue, somnolence, heaviness in the chest, breathlessness on exertion, along with weight gain. She also noticed complaints of constipation and gradual abdominal distension for 6 months. She also suffers from muscle stiffness on and off.  
On examination, the patient looks obese, pale, with dry skin, dry hairs and hoarseness

#### Investigation:

- |                     |  |
|---------------------|--|
| a) Full Blood Count | Hb-9.2g/dL, WBC –7,700/cmm, poly – 65%, lympho 30%, mono – 5% , ESR - 50min in 1 <sup>st</sup> hr. |
| b) MCV              | 102 fl (normal 76 to 96).  |
| c) PBF              | Macrocytic and normochromic.   |
| d) Chest X-ray      | Cardiomegaly with clear margin.  |
| e) Cholesterol      | 8.9mmol/L (normal 3.7 to 7.8).   |
| f) Triglyceride     | 6.4mmol/L (normal 0.8 to 2.1)  |
| g) CPK              | 560 IU/L (normal 10 to 79)   |

1. What is the likely diagnosis?
  2. Mention one investigation to confirm your diagnosis.
2. A house wife of aged 49 years was hospitalized following an attack of unconsciousness. According to the relative's statement, the patient was feeling unwell with loss of appetite, lack of interest, constipation and weight gain for the last 9 months. No significant past medical history. On examination, BP-170/105 mm Hg, pulse – 54/min, no response to painful stimulation. No neck rigidity, no Kerning's sign. Plantar – extensor on both sides. Heart and lungs – normal.

**Investigation:**

a) Full blood Count	Hb – 8.7g/dL, WBC – 19300/cmm, poly – 83%, lympho – 17%, platelets – 2,35,000/cmm, ESR – 41 mm in 1 <sup>st</sup> hr.
b) PBF	Macrocytosis and normochromic.
c) Serum bilirub	29mmol/L (normal 2 to 17)
d) SGPT	41 IU/L (normal 5 to 40)
e) Alkaline phosphatase	91 IU/L (normal 20 to 100)
f) Serum electrolytes	119mmol/L., Potassium 4.1 mmol/L.
g) Chloride	90mmol/L.
h) Bicarbonate	24mmol/L.
i) RBS	6.9mmol/L.
j) Urea	8.3mmol/L (normal 2.5 to 6.7)
k) Creatinine	110µmol/L (normal 50 to 120).
l) ECG	Heart rate 54/min and T- inversion in V1 to V6.
m) Chest X-Ray	Cardiomegaly.
n) CT scan of brain	Normal.

1. What is your diagnosis?
2. Suggest two immediate investigations.
3. A 25 – year- old lady teacher is referred form an obstetrician for medical consultation. Following delivery of a baby 3 months back, the patient is complaining of weakness, tiredness on mild exertion and loss of appetite. She has been breastfeeding normally and her son is well. She has one daughter, delivered by lower uterine cesarean section (LUCS). On examination, she is mildly anemic, edema- mild, pulse – 110/min, BP- 145/70 mm Hg. Thyroid – mildly enlarged. Cardiovascular, respiratory and abdominal examinations are normal.

**Investigation:**

a) Full Blood Count	Hb – 10.0g/dL, WBC – 8200/cmm poly – 70%, lympho30%,
b) RBS	11.2mmol/L.
c) Serum electrolyte Sodium	141mmol/L, Chloride 102mmol/L.
d) Potassium	3.8mmol/L.
e) Chest x-ray	Normal
f) Serum Creatinine	100 µmol/L (normal 55 to 125).∴
g) Serum Urea	6.3 mmol/L (2.5 to 6.6)
h) FT <sub>3</sub>	6.5 pmol/L (normal 1.2 to 3.1).
i) FT <sub>4</sub>	172pmol/L (normal 65 to 145).
j) TSH	5 mIU/L (normal 0.8 to 3.6).

1. What is the most likely diagnosis?
2. What treatment will you give?

4. A 27yrs old pregnant lady with family history of thyroid disorders presents in first trimester presents to you for screening of thyroid function tests, on her TFTS Report shows TSH, T3, T4 are raised.

What will be the next step of management?

1. Wait and Repeat TFTS in 2<sup>nd</sup> trimester
2. Get FT3 FT4 done.
3. Start with the treatment immediately?

## Module 10: Mental Health

**Module Incharge:** Dr. Sadia Azam Khan

**Coordinator:** Dr. Neelum Ali

**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material /reference of book	Assessment tools
Anxiety Disorder	At the end of session students should be able to; Identify and manage the different anxiety disorder	LGIS, CBD, Video		Psychiatry		Oxford textbook of Psychiatry	MCQs, SEQs, OSCE
Mood Disorder	At the end of session students should be able to; Identify and manage the different mood disorder	LGIS, CBD, Video		Psychiatry		Oxford textbook of Psychiatry	MCQs, SEQs, OSCE
Substance use Disorder	At the end of session students should be able to; Identify and manage the substance disorder	LGIS, CBD, Video		Psychiatry		Oxford textbook of Psychiatry	MCQs, SEQs, OSCE
Psychotic and Neuro Congnitive Disorder	At the end of session students should be able to; Identify and manage the Psychotic and neuro cognative disorder	LGIS, CBD, Video		Psychiatry		Oxford textbook of Psychiatry	MCQs, SEQs, OSCE

## Case Scenario

### Topic: Depression & Suicide

A 48 years old lady presents to your clinic with self-inflicted superficial tentative cuts on her neck. She was rescued by her family while trying to slit her throat alone in a room. On being questioned, she reported that her life felt like a burden. She had low mood, frequent weeping spells, and would find no pleasure in daily activities for the past 2 months after the death of her 20 years old son in a road traffic accident. She would dwell on her past mistakes and feel hopeless about the future. Her sleep and appetite were also reduced. On further questioning, it was found that she had had 3 similar episodes in the past 15 years. She is hypertensive and diabetic since the last 5 years.

### Topic: Schizophrenia

A 20 years old man is brought to your clinic forcefully by his family. He has a 8 months' history of hearing voices commenting on his activities, which he believes are electromagnetic signals that he receives of his neighbors reporting his activities to intelligence agencies. To keep these neighbors from spying on him, he has isolated himself in his room and put extra locks on all the doors and windows. He becomes aggressive if anyone from his family communicates with his neighbors. Lately, he stopped eating and taking care of his self since the last 1 month and the family had to forcefully bring him to the doctor.

### Topic: Dementia

A 72 years old man is brought to your clinic by his family with complaints of increasing irritability and suspiciousness. They also report that for the past 3 years, he has memory impairment which keeps getting worse. He cannot go out of the house alone as he gets lost on the way, and sometimes wears mismatching clothes. When he cannot find one of his belongings at home, he gets aggressive and claims that thieves have stolen his stuff. Since he was now becoming unmanageable at home, the family has brought him to the doctor for advice.

## Module 11: ENT & Eye

**Module Incharge:** Dr. Sadia Azam Khan

**Coordinator :** Dr. Neelum Ali

### Module Faculty:

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material / reference of book	Assessment tools
Common ear, nose & throat disorders (nasal obstruction, ear discharge and recurrent sore throat)	At the end of session students should be able to; 1. Diagnose the patients with common ENT disorders 2. Manage the patients presenting with common ENT disorders 3. Identify the primary source of infection and its effect on the adjacent areas	LGIS, CBD, Video		ENT		Oxford handbook of ENT & head and neck surgery	MCQs SEQs, OSCE



	4. Differentiate between viral and bacterial respiratory tract infection 5. Counsel the patients regarding the effect of ear, nose and throat problems						
Common eye disorders (red eye, lid mass, gradual decrease in vision)	At the end of session students should be able to; 1. Diagnose the patients with common 2. Enlist differential diagnosis 3. Manage the patients presenting with common 4. Refer the patients for ophthalmic consultation 5. Recognize various ophthalmic conditions on ophthalmoscopy	LGIS, CBD, Video		Eye		Oxford Textbook of Ophthalmology	MCQs, SEQs, OSCE

## Case Scenario

### Topic: Nasal Obstruction

A 23 years old boy presents in the ENT OPD with the complaint of nasal obstruction for the last 5 years. The nasal obstruction is intermittent and alternate from side to side. There is a history of frequent sneezing and nasal discharge, headache and post nasal drip. On examination, there is a gross deflection of the nasal septum on the left side. Throat examination reveals granules on the posterior pharyngeal wall. How you will proceed with the management of this patient?

### Topic: Ear Discharge

A 40 years old woman presents to ENT OPD with the complaints of left-sided ear discharge for the last 7 years. She also complained of decreased hearing from the left ear. On examination, there is muco- purulent left sided ear discharge with a central tympanic membrane perforation. On nasal examination, there is bilateral marked inferior turbinate hypertrophy with discharge in both nasal cavities. How you will manage this case?

### Topic: Recurrent Sore Throat

A 20 years old male presents in the ENT OPD with the complaint of recurrent sore throat for the last 7 years. During the episode of sore throat he experiences a low grade fever, change of voice, nasal stuffiness and decreased hearing. On examination there are bilateral hypertrophied tonsils and deviated nasal septum. Patient has been asked by many general physicians to undergo tonsillectomy. How you will manage this case and will counsel him regarding the nature of his illness?

### Topic: Gradual Decrease of Vision

A 59 years old male presented in Eye OPD with complaint of gradual decrease of vision.

1. What is the differential diagnosis?
2. How will you manage the case?

**Topic: Red Eye**

A 26 years old male presented to OPD with complaint of redness and discharge from right eye.

1. What are the important points in the history that need to be asked?
2. Enlist differential diagnosis.
3. Describe management plan.

**Topic: Lid Mass**

A 35 years old female presented in OPD with complaint of growth on right upper eyelid since 1 month.

1. What are the important points in the history that need to be asked?
2. Enlist differential diagnosis.
3. Describe management plan.

## Module 12: Orthopedics & Radiology

**Module Incharge:** Dr. Sadia Azam Khan

**Coordinator :** Dr. Neelum Ali

**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material/ reference of book	Assess ment tools
Fractures Upper limb & Lower Limb	At the end of session students should be able to; <ol style="list-style-type: none"> <li>1. Identify and diagnose important fractures</li> <li>Assess risk factors for Fractures</li> <li>2. Manage patients with common fractures</li> <li>3. Recognize the importance of timely and safe</li> <li>4. Referral of fracture safe case</li> </ol>	LGIS, CBD, Video		Orthopedics		Oxford textbook of Psychiatry	MCQs SEQs OSCE
Radiology (Imaging of Common X-rays like Chest, Bones etc)	At the end of session students should be able to; Identify the common Radiological findings	LGIS CBD Video		Radiology		Oxford Textbook of Radiology	MCQs, SEQs, OSCE

**Module 13: Emergency Management****Module Incharge:** Dr. Sadia Azam Khan**Coordinator :** Dr. Neelum Ali**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material/ reference of book	Asses ent tools
Shock	At the end of session students should be able to; 1. Identify various types of shock, 2. Assess a patient presenting with shock Outline the management of Cardiogenic, Hypovolemic, Neurogenic shock	LGIS, CBD, Video		Accident and Emergency Department		Oxford textbook of Emergency Medicine	MCQs, SEQs, OSCE
Anaphylaxis	At the end of session students should be able to; Identify a patient with Anaphylaxis, Illustrate causes of Anaphylaxis Manage a patient with Anaphylaxis	LGIS, CBD, Video		Accident and Emergency Department		Oxford textbook of Emergency Medicine	MCQs, SEQs, OSCE
Sepsis	At the end of session students should be able to; Recognize and manage a patient presenting with Sepsis including neutropenic sepsis.	LGIS, CBD, Video		Accident and Emergency Department		Oxford textbook of Emergency Medicine	MCQs, SEQs, OSCE
Common Medical and Surgical Emergencies & Common Emergencies including Abdominal pain, chest pain, vomiting, headache	At the end of session students should be able to; 1. Diagnose and manage acute abdominal pain 2. Identify and manage GI bleed 3. Enlist causes of abdominal distention and initiate management 4. Identify poisoning and suicide 5. Assessment and management of common emergency cases	LGIS, CBD, Video		Accident and Emergency Department		Oxford textbook of Emergency Medicine	MCQs, SEQs, OSCE

The unconscious patient	At the end of session students should be able to; 1. Identify and enlist causes of unconsciousness Assess and manage the unconscious patient 2. Enlist indications of urgent CT scan. 3. Manage cases of unconsciousness e.g suspected drug overdose metabolic, alcohol intoxication, neurological causes, head injury and refer appropriately 4. Outline management of status epilepticus	LGIS, CBD, Video		Accident and Emergency Department		Oxford textbook of Emergency Medicine	MCQs, SEQs, OSCE
-------------------------	---	------------------	--	-----------------------------------	--	---------------------------------------	------------------

### Module 14: Gynecology / Obstetrics & Pathology

**Module Incharge:** Dr. Sadia Azam Khan

**Coordinator :** Dr. Neelum Ali

**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material/ reference of book	Assessment tools
Antenatal and Post Natal Problems  Diabetes Mellitus, HTN & Anemia in pregnancy	At the end of session students should be able to; 1. Diagnose and manage antenatal and post natal problems 2. Diagnose patients presenting with diabetes, hypertension and anaemia during pregnancy 3. Counsel patients about medical problems during pregnancy 4. Educate patients about nutrition during pregnancy 5. Refer to tertiary care as indicated	LGIS, CBD, Video		Gynae/ Obs		Oxford handbook of Gynae/ Obs	MCQs, SEQs, OSCE

Drugs & pregnancy Menstrual Problems	At the end of session students should be able to; 1. Recommend safe medication during pregnancy 2. Avoid prescribing medication with risk of teratogenicity 3. Diagnose and manage common Menstrual disorders including Menopause	LGIS, CBD, Video		Gynae/ Obs		Oxford handbook of Gynae/ Obs	MCQs, SEQs
Pathology (Labs interpretation)	At the end of session students should be able to; 1. Interpret common pathological investigations 2. Counsel the patients	LGIS, CBD, Video		Pathology		Oxford handbook of Pathology	MCQs, SEQs

## Case Scenario

### Topic: Hypertension in pregnancy

1. A 26 years old woman at 26 weeks of gestation presents to your clinic for antenatal checkup. On examination her B.P is 145/95mmHg. Which laboratory investigation is most appropriate to advice?
2. A 20 years old woman, Primigravida at 32 weeks of gestation presented to you with complaint of severe headache. On examination edema ++, B.P 180/120, proteinuria ++ on routine urine examination. How will you manage her?
3. A 35 years old woman G5P4 now at 36 weeks of gestation presents to your clinic to show her laboratory investigations. On CBC her Hb is 10.6 g/dl, urine R/E shows proteins 2+. On examination her B.P is 160/110mm Hg, edema ++. She is otherwise asymptomatic. How will you manage her?

### Topic: Diabetes in Pregnancy

1. A 28 years old woman with type I DM on treatment comes to your clinic. She wants pre pregnancy counseling as she is told by some friend that diabetes can cause anomalies in fetus. What will you advise her?
2. 28 years old Primigravida at 24 weeks of gestation comes to your clinic for first time. She has positive family history for DM. Her BMI was 30kg/m<sup>2</sup>. She did not have any other risk factor. Which investigation would you advise her?

### Topic: Anaemia in Pregnancy

A 25 years old female presents at 24weeks of gestation with generalized weakness and shortening of breath for 2 weeks. Her blood complete count shows Hb 6gm/dl. How will you manage her?

### Topic: Safe use of drugs in Pregnancy

1. A 22 years old Primigravida at 10 weeks of gestation presents with complaint of burning micturation and dysuria. On routine urine examination shows 25-30 puss cells. Which drug is safe for her to treat UTI?
2. A 25 years old healthy female presents to your clinic at 8 weeks of gestation. She has no history of any co morbid and currently not taking any medication. She is very

- anxious about baby's health and wants you to prescribe her supplements. Which supplement will you prescribe her at this gestational age?
3. A 22 years old woman, primigravida at 20 weeks of gestation. She is known epileptic for 10 years. In addition to her anti-convulsing treatment she is taking iron supplements and 400mcg/day of folic acid. What will you advise her

## Module 15: Paediatrics

**Module Incharge:** Dr. Sadia Azam Khan

**Coordinator :** Dr. Neelum Ali

**Module Faculty:**

Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material/ reference of book	Assess ment tools
Neonatal examination	At the end of session students should be able to; 1. Perform neonatal examination/ Newborn check 2. Recognize common neonatal problems	Hands on session, Video, SGD		Paediatric Medicine		Oxford handbook of Pediatrics'	MCQs, SEQs, TOACS
Vaccination Schedule	At the end of session students should be able to; 1. Elaborate vaccine schedule 2. Describe dose and route of administration of vaccines	Hands on session, Video, SGD		Paediatric Medicine		Oxford handbook of Pediatrics'	MCQs, SEQs, TOACS
Acute & Diarrhea	At the end of session students should be able to; 1. Assess diarrhea 2. Classify diarrhea 3. Manage cases of acute diarrhea	SGD, Bedside teaching		Paediatric Medicine		Oxford handbook of Pediatrics'	MCQs, SEQs, TOACS
Childhood Pneumonia	At the end of session students should be able to; 1. Diagnose cases of pneumonia 2. Classify pneumonia 3. Manage cases presenting with cough and fever	LGIS, Bedside teaching, CBD		Pediatrics Medicine		Oxford handbook of Pediatrics'	MCQs, SEQs, TOACS
Measles and Rash	At the end of session students should be able to; 1. Make differential diagnosis of rash 2. Outline	LGIS, Video, CBD		Pediatrics Medicine		Oxford handbook of Pediatrics'	MCQs, SEQs, TOACS

	management plan for patients presenting with rash						
Neonatal Jaundice	At the end of session students should be able to; 1. Enlist the causes of neonatal jaundice 2. Recommend investigations 3. Interpret investigations report 4. Outline management plan for neonatal jaundice	LGIS, Video, Bedside teaching		Paediatric Medicine		Oxford handbook of Pediatrics'	MCQs, SEQs, TOACS
Common Pediatric surgical problems	At the end of session students should be able to; 1. Make differential diagnosis 2. Diagnose children with common surgical problems. 3. Outline management plan 4. Recognize patients for referral to hospital	LGIS, Video, CBD		Paediatric Surgery		Oxford handbook of Pediatrics'	MCQs SEQs, TOACS

## Case Scenario

### Topic: Common Paediatric Surgical Problems

1. A 2 days old baby presented in Accident & Emergency department with failure to pass meconium, gross abdominal distension and bilious vomiting. On examination, Pulse was 120 beats/minute; respiratory rate was 52 breaths/minute. Abdomen was distended and anus was patent. There is also antenatal history of Polyhydramnios.
  1. What is most likely diagnosis?
  2. What are differential diagnoses?
  3. How will you manage this child?
2. A 5 years old boy presented in OPD with recurrent abdominal pain. There is history of off and on bleeding per rectum. Child is pale looking having hemoglobin of 6.7 gm/dl. Ultrasound abdomen was unremarkable
  1. What is a differential diagnosis?
  2. How to investigate the patient?
  3. Outline management plan?

3. A 9 years old boy presented in Accident & Emergency department with sudden onset of pain in scrotum from last 6 hours. O/E right hemiscrotum was red, swollen and tender. Clinical examination of opposite side was unremarkable.
1. What is differential diagnosis?
  2. How will you investigate this child?
  3. How will you manage this patient?

## Module 16: Research In Clinical Practice

**Module Incharge:** Dr. Sadia Azam Khan

**Coordinator :** Dr. Neelum Ali

**Module Faculty:**

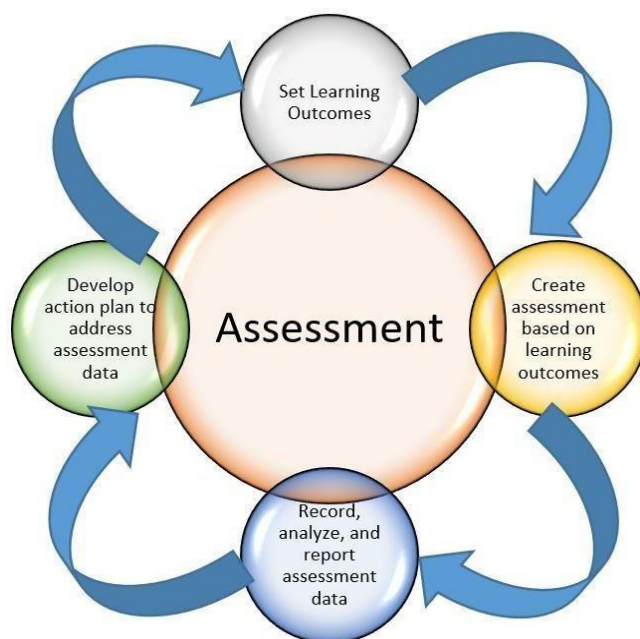
Topics	Learning Objectives	Teaching Strategy	Time	Deptt.	Faculty	Study material/ reference of book	Assess ment tools
Introduction to health system Research	At the end of session students should be able to: Describe the purpose, scope and characteristics of health systems Research.	LGIS, Power point presentation		Community Medicine			MCQs, SEQs,
Identify Research problem and introduction to literature Review	<ol style="list-style-type: none"> <li>1. Identify the criteria for selecting health problems to prioritise for research.</li> <li>2. Formulate the Research Problem</li> <li>3. Reviewing Literature</li> <li>4. Identify resources available for literature Reviews</li> <li>5. Literature Review Referencing</li> </ol>	LGIS, Power point presentation		Community Medicine			MCQs, SEQs,
Formulation of Research Objectives	Prepare Research objectives	LGIS, Power point presentation		Community Medicine			MCQs, SEQs,
Hypothesis	Formulate Null hypothesis and Alternate hypothesis	LGIS, Power point presentation		Community Medicine			MCQs, SEQs,
Research Methodology	At the end of session students should be able to: <ol style="list-style-type: none"> <li>1. Define Study variables</li> <li>2. Identify types of</li> </ol>	LGIS, CBD, Video		Community Medicine			MCQs, SEQs, OSCE



	variables and their use in research design.						
Data Collection	1. Recognize the appropriate study design for Research 2. Identify appropriate data collection tools.	LGIS, CBD, Video		Community Medicine			MCQs, SEQs, OSCE
Sampling	Describe common sampling methods	LGIS, CBD, Video		Community Medicine			MCQs, SEQs, OSCE
Statistical Analysis	Demonstrate knowledge of resources for data collection, storage and analysis	LGIS, CBD, Video		Community Medicine			MCQs, SEQs, OSCE
Study Designs	Demonstrate knowledge of various study designs	LGIS, CBD, Video		Community Medicine			MCQs, SEQs, OSCE
Critical Appraisal	Able to critically appraise a research paper.	LGIS, CBD, Video		Community Medicine			MCQs, SEQs, OSCE

## SECTION-III

## Assessment



## Assessment

The aim of assessment is to assess both the clinical competence and professionalism during the course. It includes both formative and summative assessments as detailed below. Attendance and participation in the face to face sessions and online discussions are also considered as part of the formative assessment. The training component of the course is not just for developing clinical competence but can also be used to complete the compulsory WPBA.

Assessment	Formative	Summative
Knowledge	MCQ's, OSCE	MCQ's, OSCE
Skills	WPBA (DOPS, mini-CEX), OSCE	OSCE, PSA
Behavior	SJT, WPBA (E-portfolio, COT, CBD)	OSCE,

## WPBA (Work place based assessments)

CBD	Minimum One – Two per module
Mini CEX	One per system
COT	Total 4
DOPS	Total 10
Audits	As agreed

Sr.no	Modules	Face to Face Interactive sessions		MCQs	Rotations		OSCE
		Hours	Percentage %	Questions	Weeks	Percentage %	Stations
1	Principles of Family Medicine	10	10%	10	8	14%	3
2	Cardiovascular Module	6	6%	6	2	3.57%	1
3	Infectious Diseases Module	6	6%	6	2	3.57%	1
4	Gastrointestinal & Liver Module	6	6%	6	2	3.57%	1
5	Respiratory Module	6	6%	6	2	3.57%	1
6	Musculoskeletal & Dermatology Module	6	6%	6	4	7.14%	2
7	Neurology Module	6	6%	6	2	3.57%	1
8	Surgery & Urology Module	6	6%	6	4	7.14%	2
9	Endocrinology Module	6	6%	6	1	1.78%	1
10	Mental Health Module	6	6%	6	4	7.14%	2
11	ENT & Eye Module	6	6%	6	4	7.14%	2
12	Orthopedics and Radiology	6	6%	6	4	7.14%	2
13	Emergency care	6	6%	6	6	10.71%	2
14	Gynaecology & Obstetrics	6	6%	6	4	7.14%	2
15	Pediatrics Module	6	6%	6	6	10.71%	2
16	Research in Clinical Practice	6	6%	6	1	1.78%	0
<b>Total</b>		100	100%	100	56	100%	25
<b>Credit Hours</b>		6			28		

CREDIT HOURS	
Teaching Methodology	Credits
Face to Face sessions	6 Credits
Clinical Rotations	28 Credits
Research Assignment	3 Credits
Assignment	2 Credits
<b>Total</b>	<b>39 Credits</b>



## Section- IV

## Certification



## Certification

Diploma of Family Medicine course will be issued to the qualifying candidates by Rawalpindi Medical University on securing 60% marks in final assessment.

	<b>RAWALPINDI MEDICAL UNIVERSITY RAWALPINDI</b>	
Family Medicine Certificate Course August 2019- February 2020		
This is to certify that		
S/D/O _____ PMDC Registration # _____		
has successfully completed _____ Credit Hours of		
Family Medicine Certificate Course		
at Rawalpindi Medical University, Rawalpindi		
<b>Prof. Muhammad Umar</b> Vice Chancellor, Rawalpindi Medical University & Allied Hospitals, Rawalpindi	<b>Prof. Muhammad Ajmal</b> Director Family Medicine Certificate Course RMU & Allied Hospitals, Rawalpindi	<b>Prof. Syed Arshad Sabir</b> Co-Director Family Medicine Certificate Course RMU & Allied Hospitals, Rawalpindi

## References

- Essentials of Family Medicine (6<sup>th</sup> edition) by Philip et al.
- Swanson's Family Medicine review (8<sup>th</sup> edition) by Alfred et al.
- Current diagnosis and treatment of Family medicine (4<sup>th</sup> edition) by Tanet et al.

## Self-Directed Learning (SDI) Resources

1. SOPs for communicable disease response and control  
[http://www.pshealth.punjab.gov.pk/Home/Sops\\_guidelines](http://www.pshealth.punjab.gov.pk/Home/Sops_guidelines)
2. Guidelines for Crimean-Congo Hemorrhagic fever  
[http://www.pshealth.punjab.gov.pk/Home/Sops\\_guidelines](http://www.pshealth.punjab.gov.pk/Home/Sops_guidelines)
3. Guidelines for Measles  
[http://www.pshealth.punjab.gov.pk/Home/Sops\\_guidelines](http://www.pshealth.punjab.gov.pk/Home/Sops_guidelines)
4. Guidelines for Pandemic Influenza (H1N1)  
[http://www.pshealth.punjab.gov.pk/Home/Sops\\_guidelines](http://www.pshealth.punjab.gov.pk/Home/Sops_guidelines)
5. Guidelines for Zika virus disease  
[http://www.pshealth.punjab.gov.pk/Home/Sops\\_guidelines](http://www.pshealth.punjab.gov.pk/Home/Sops_guidelines)

## Guidelines for prevention of Hepatitis A & E

1. Guidelines for the management of Gastroenteritis
2. Guidelines for the management of Dengue hemorrhagic fever
3. Guidelines for the management of respiratory tract infections

## Mandatory Textbooks

- Oxford Handbook of Clinical Medicine (10<sup>th</sup> Edition)
- Current Medical Diagnosis & Treatment (2019)

## Learning Resources

### List Required Textbooks

#### 1. Oxford Hand Book of General Practice (4<sup>th</sup> Edition)

Chantal Simon, Hazel Everitt, Francoise van Dorp, Matt Burkes ISBN 978-0-19-874909-7

#### 2. Current Diagnosis and treatment - Family Medicine (4<sup>th</sup> Edition)

Jeannette E. South-Paul, Samuel C. Matheny, Evelyn L. Lewis ISBN 978-0-07-182745-4

- a) Chapter 15: Health Maintenance for Adults (pg. 145-161)
- b) Chapter 22: Dyslipidemia (pg. 217-221)
- c) Chapter 27: Cancer Screening In Women (pg. 268-277)
- d) Chapter 35: Hypertension (Pg. 369-380)
- e) Chapter 36: Diabetes Mellitus (Pg. 381-389)
- f) Chapter 61: Tobacco Cessation (Pg. 645-652)

#### 1. Text book of Family Medicine (9<sup>th</sup> Edition)

Robert Rakel, David Rakel ISBN: 978-0-323-23990-5

- a) Chapter 34: Diabetes Mellitus (pg. 782-816)
- b) Chapter 36: Obesity (pg. 867-890)
- c) Chapter 49: Nicotine Addiction (pg. 1133-1151)

#### 2. Family medicine Principles and practice (7<sup>th</sup> Edition)

Paul M. Paulman, Robert B. Taylor ISBN: 978-3-319-04414-9

- a) Chapter 7: Clinical prevention (pg. 71-98)
- b) Chapter 8: Health Promotion and Wellness (pg. 99-109)
  - Physical Activity Guidelines for Adults (pg. 101-103)
  - Nutrition (pg. 103-106)
  - Identifying disease risk (pg. 107)
  - Tobacco cessation (pg. 107-109)
- c) Chapter 55: Care of the obese patient (pg. 699-706)
- d) Chapter 77: Hypertension (pg. 963-971)
- e) Chapter 85: Obstructive airway disease (pg. 1073-1081)
- f) Chapter 121: Dyslipidemia (pg. 1637-1647)
- g) Chapter 122: Diabetes (pg. 1649-1667)

**2. List Essential References Materials**

- Package of Essential Non communicable (PEN) Disease Interventions for Primary Health Care in Low-Resource Settings  
[https://www.who.int/nmh/publications/essential\\_ncd\\_interventions\\_lr\\_settings.pdf](https://www.who.int/nmh/publications/essential_ncd_interventions_lr_settings.pdf)
- Detection, Evaluation, and Management of High Blood Pressure in Adults  
<https://www.ahajournals.org/doi/pdf/10.1161/HYP.000000000000065>
- Introduction: Standards of Medical Care in Diabetes—2019  
[https://care.diabetesjournals.org/content/diacare/suppl/2018/12/17/42.Supplement\\_1.DC1/DC\\_4\\_2\\_S1\\_2019\\_UPDATED.pdf](https://care.diabetesjournals.org/content/diacare/suppl/2018/12/17/42.Supplement_1.DC1/DC_4_2_S1_2019_UPDATED.pdf)
- Dyslipidemia ATP 4  
<http://www.just.edu.jo/DIC/ClinicGuidlines/Dyslipidemia%20ATP4%20GUIDLINES.pdf>
- Asthma Management and prevention. Global Initiative for Asthma.  
<https://ginasthma.org/wp-content/uploads/2019/04/GINA-2019-main-Pocket-Guide-wms.pdf>
- Pocket Guide to COPD Diagnosis, Management and Prevention. A Guide for Health Care Professionals 2019 Edition.  
<https://ginasthma.org/wp-content/uploads/2019/04/GINA-2019-main-Pocket-Guide-wms.pdf>

**Links For Audiovisual Self-Directed Learning**

1. How to pass the nasogastric tube  
<https://www.youtube.com/watch?v=1OakmxZDa5c>
2. How to perform phlebotomy  
<https://www.youtube.com/watch?v=s-vTzQkUQd8>
3. How to pass a Foleys catheter  
<https://www.youtube.com/watch?v=2iLPfCAMgZs>
4. How to check arterial blood gases  
<https://www.youtube.com/watch?v=0BSv4iN8T2E>
5. How to check urine for ketones  
<https://www.youtube.com/watch?v=JaGXDyX876A>
6. How to interpret ECG  
<https://www.youtube.com/watch?v=EmmjwggwHkO0>
7. How to pass an intravenous cannula  
<https://www.youtube.com/watch?v=aXJZSYOh6dU>
8. How to use the Otoscope  
<https://www.youtube.com/watch?v=FqSCfgoCNil>
9. How to use the ophthalmoscope  
[https://www.youtube.com/watch?v=NE\\_epHjNpfo](https://www.youtube.com/watch?v=NE_epHjNpfo)
10. How to apply different splints for fractures  
<https://www.youtube.com/watch?v=pGxxKH4wSqs>  
[https://www.youtube.com/watch?v=iNPy\\_ClgT9Q](https://www.youtube.com/watch?v=iNPy_ClgT9Q)  
<https://www.youtube.com/watch?v=8jnCDQDzbAc>  
<https://www.youtube.com/watch?v=WXA5Ha3P7PE>

<https://www.youtube.com/watch?v=150jI5ChCb8>

<https://www.youtube.com/watch?v=bwwWpHg-E>

<https://www.youtube.com/watch?v=pK01AfxMBtk>

### List Of Abbreviations

<b>AED</b>	<b>Automated External Defibrillator</b>
<b>AHA</b>	<b>American Heart Association</b>
<b>AKI</b>	<b>Acute Kidney Injury</b>
<b>ALT</b>	<b>Alanine Transaminase</b>
<b>APT</b>	<b>Alkaline Phosphatase</b>
<b>ASD</b>	<b>Atrial Septal Defect</b>
<b>AST</b>	<b>Aspartate Transaminase</b>
<b>BLS</b>	<b>Basic Life Support</b>
<b>BMI</b>	<b>Body Mass Index</b>
<b>BPH</b>	<b>Benign Prostatic Hypertrophy</b>
<b>BUN</b>	<b>Blood Urea Nitrogen</b>
<b>CBC</b>	<b>Complete Blood Count</b>
<b>CBD</b>	<b>Case-Based Discussion</b>
<b>CCU</b>	<b>Coronary Care Unit</b>
<b>CLD</b>	<b>Chronic Liver Disease</b>
<b>COPD</b>	<b>Chronic Obstructive Pulmonary Disease</b>
<b>CPK</b>	<b>Creatinine Phosphokinase</b>
<b>CPR</b>	<b>Cardio-Pulmonary Resuscitation</b>
<b>CRP</b>	<b>C-Reactive Protein</b>
<b>CVS</b>	<b>Cardiovascular System</b>
<b>CXR</b>	<b>Chest X-ray</b>
<b>DID</b>	<b>Department of Infectious Diseases</b>
<b>DM</b>	<b>Diabetes Mellitus</b>
<b>DME</b>	<b>Department of Medical Education</b>
<b>ECG</b>	<b>Echocardiography</b>
<b>ESR</b>	<b>Erythrocyte Sedimentation Rate</b>
<b>ETT</b>	<b>Endotracheal Tube</b>
<b>ENT</b>	<b>Ear Nose &amp; Throat</b>
<b>FOBT</b>	<b>Fecal Occult Blood Test</b>
<b>GI</b>	<b>Gastrointestinal</b>
<b>GPs</b>	<b>General Practitioners</b>
<b>Hb</b>	<b>Hemoglobin</b>
<b>Hct</b>	<b>Hematocrit</b>
<b>HCV</b>	<b>Hepatitis C Virus</b>
<b>HTN</b>	<b>Hypertension</b>
<b>ICU</b>	<b>Intensive Care Unit</b>
<b>I &amp; D</b>	<b>Incision &amp; Drainage</b>



<b>LBW</b>	<b>Low Birth Weight</b>
<b>LFT</b>	<b>Liver Function Test</b>
<b>LUCS</b>	<b>Lower Uterine Caesarean Section</b>
<b>LRTI</b>	<b>Lower Respiratory Tract Infections</b>
<b>MBBS</b>	<b>Bachelor of Medicine &amp; Bachelor of Surgery</b>
<b>MCQ</b>	<b>Multiple Choice Question</b>
<b>MCV</b>	<b>Mean Corpuscular Volume</b>
<b>mhGAP</b>	<b>Mental Health Gap Action Programme</b>
<b>NG</b>	<b>Nasogastric</b>
<b>OSCE</b>	<b>Objectively Structured Clinical Examination</b>
<b>PBF</b>	<b>Peripheral Blood Film</b>
<b>PDA</b>	<b>Patent Ductus Arteriosus</b>
<b>PGME</b>	<b>Post Graduate Medical Education</b>
<b>PHC</b>	<b>Primary Health Care</b>
<b>PM&amp;DC</b>	<b>Pakistan Medical &amp; Dental Council</b>
<b>POP</b>	<b>Plaster of Paris</b>
<b>PPE</b>	<b>Personal Protective Equipment</b>
<b>PT</b>	<b>Prothrombin Time</b>
<b>PTT</b>	<b>Partial Thromboplastin Time</b>
<b>RBS</b>	<b>Random Blood Sugar</b>
<b>SEQs</b>	<b>Short Essay Questions</b>
<b>SGD</b>	<b>Small Group Discussion</b>
<b>SOB</b>	<b>Shortness of Breath</b>
<b>TB</b>	<b>Tuberculosis</b>
<b>TFT</b>	<b>Thyroid Function Test</b>
<b>TGA</b>	<b>Transposition of Great Arteries</b>
<b>TOF</b>	<b>Tetralogy of Fallot</b>
<b>TSH</b>	<b>Thyroid Stimulating Hormone</b>
<b>USG</b>	<b>Ultrasonography</b>
<b>UTI</b>	<b>Urinary Tract Infection</b>
<b>VHF</b>	<b>Viral Haemorrhagic Fever</b>
<b>VSD</b>	<b>Ventricular Septal Defect</b>
<b>WBC</b>	<b>White Blood Count</b>