C U R R I C U L U M

Rawalpindi Medical University

MD Program of Family Medicine

THE VICE CHANCELLOR

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Certificate in Health Professions Education CHPE, RMU
Assistant Director Biomedical Ethics Dept. RMU
Member Board of Advanced Studies and Research (BASAR) RMU

Vision & Mission

Family Medicine Department

Our Vision is to improve the health of patients, families and nation through health education, empowerment, innovation and leadership by improving the standards of medical education and professional training.

Mission

To provide high quality, patient-centered health care maintaining best ethical standards by competent, caring and compassionate doctors

To fulfill this mission, we will:

1. Provide the highest quality, cost-effective, and patient-centered care to a diverse population through multidisciplinary approach

2. Improve access to care for underserved populations.

3. Design exemplary Family Medicine training programs.

4. Incorporate research and innovation in clinical practice

5. Train professionals to be lifelong experiential learners

Foreword

Postgraduate MD Program 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 worldwide**.**The learning objectives of this MD program were designed following a need assessment and a valid syllabus was chosen. It is mandatory to complete all components of Training to receive the qualification of Postgraduate degree of MD in Family Medicine.

This program is structured to include Academic 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 thisprogram by allocating necessary resources, providing facultyand establishing a monitoring system with an aim to take it to next level to meet with the international standards.

An Expert Committee for MD 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, Associate Professor and HOD of Family Medicine, RMU
2. Dr. Rizwana Shahid, Assistant Professor, Community Medicine, RMU
3. Dr. Zahid Rafiq, Family Physician, Canada

This advisory committee not only worked responsibly in designing the curriculum of MD in Family Medicine following the identification of needs of the community but also worked meticulously for its launching, implementation and execution

The Chairperson of Content ApprovalCommittee is Prof. MuhammadRai Asghar, who is Dean of Paediatrics, Controler Examination and Director Medical Education.

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 MD program 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 Family Medicine through Clinical rotations in major clinical disciplines, to enhance the clinical knowledge and skills of 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 MD Family Physician will act as a Family Medicine expert, effective communicator, collaborator, manager, health advocate, cholar and a true Professional.

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The curriculum has been devised to include a knowledge component and a practical skills component during hospital rotations. Knowledge will be imparted mainly through small 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 flexibility. 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 allowflexibility 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 end Modular assessments, IMM Intermediate Modular assessment on completion of 2 years of training.A series of Quiz, MCQs, caseScenarios, case based discussions, MiniCEX, peer discussions, reflective entries, portfolio writings will be used.It 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
HOD Associate Professor Family Medicine RMU
MBBS, MRCGP UK
Master Trainer in Family Medicine UHS
Palliative Care Certificate Princess Alice Hospice UK
Diploma in Health Research DHR RMU
Certificate in Health Professions Education CHPE, RMU
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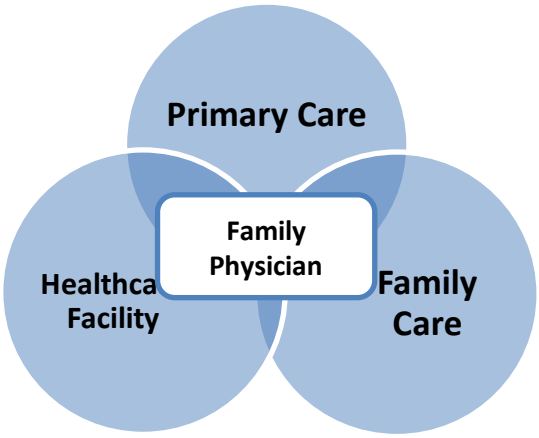
INTRODUCTION

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, pediatric, obstetric and gynecological care within the community. The recent pandemic of COVID 19 has raised awareness of the need of a strong primary health care system and this program will go a long way to fulfill 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 MD Program 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 thiscourse. It 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 MD program is also part of the same endeavor. RMU is starting this program to enhance the competency of general physicians. This program is intendedto 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

MESSAGE OF THE HEALTH MINISTER

Our government, since its inception, has been fully supportive of the improvement of health care delivery in Punjab. There are multiple stakeholders and general physicians in the Punjab health care system in public as well as in private setups that are of prime importance. They are the first to receive the patients and to deal with their healthcare problems. Their Continuous Professorial Development (CPD) is essential to strengthen the foundations of healthcare delivery in the province.

Strenuous efforts of Prof Dr. Muhammad Umar, Vice Chancellor Rawalpindi Medical University and his dedicated team on launching the MD program for Family physicians are really appreciable which is the first of its kind in Punjab.

I hope that the general physicians trained through MD program will maintain their enthusiasm in sincerely applying the power of education not only to enhance their individual professional careers but also towards the betterment of the healthcare of the nation.

In the end, I hope to see RMU progressively playing its role in professional training of doctors for the social and intellectual wellbeing of our population paving the way towards achievement of Sustainable Developmental Goals.

MESSAGE OF THE VICE CHANCELLOR

Prof. Dr. Muhammad Umar (Sitara-e-Imitaz)
MBBS, MCPS, MD, FRCP (Glasg), FRCP (London), FACG (USA), AGAF (USA)

It is indeed a matter of great pleasure that the Department of Family Medicine, Rawalpindi Medical University is going to commence the MD program for family physicians. This is one of themany 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 post graduate training in Family Medicine like MD program will provide a broad framework forfamily 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 the program which will ultimately be beneficial for the community.

PROGRAM OUTCOMES

On completion of MD 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

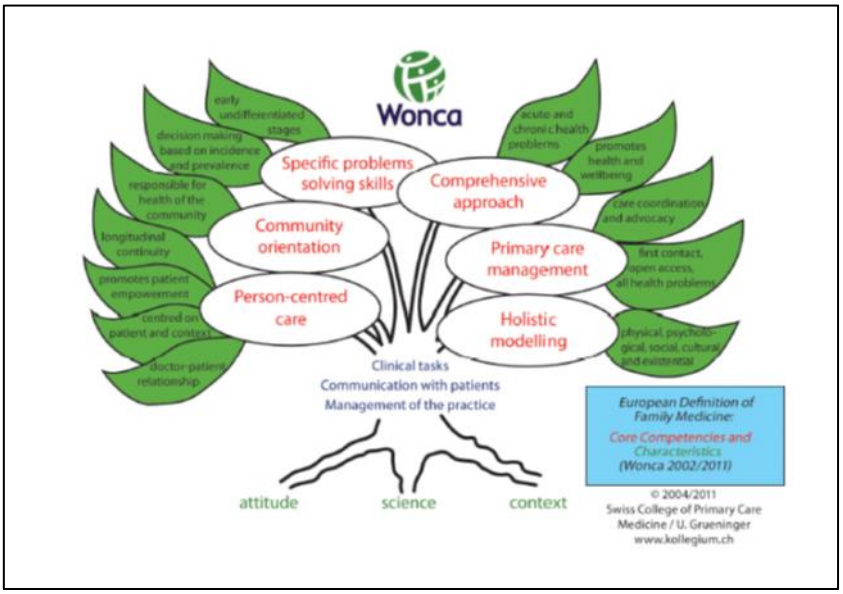
family and the community. WONCA defined six main competencies that a general practitioner/family physician has to master (figure 1). These competencies include the following: Primary care management, person-centered care, specific problem solving skills, comprehensive approach, community-orientation 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. Coordinatingcareof 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 processfor 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 wellbeingand preventing diseasesthrough appropriate effective interventions.
10. Assuming specific responsibility for the health of the community.
11. Adopting holistic approach for health problems incorporatingphysical, 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 CanMEDS 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 MD 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.

The residents during all rotations must spend one day in Family Medicine department every week for CME/Academic Sessions/Case Based discussions on patients seen in the respective rotation

MANDATORY WORKSHOPS AND COURSES

1. It is mandatory for all residents to attend the Mandatory Workshops in the first two years of training:
2. Introduction to Computer and Internet
3. Research Methodology Biostatistics & Dissertation Writing
4. Communication Skills
5. Diabetes Training
6. BLS/ACLS Resuscitation course

The workshops are conducted by the Department of Family Medicine.

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RESEARCH (Dissertation/Two Research Papers)

One of the mandatory training requirements is a dissertation or two research papers on topics related to the field of specialization.

Family Medicine synopsis of the dissertation must be submitted to Research Unit by the end of first year and should be approved before starting the research work.

Topic/title of the papers with Synopsis should be submitted to Research Cell and approval by Ethics Committee obtaind before Data Collection
The dissertation or evidence of publication/acceptance of research paper must be submitted six months prior to the Final Assessment as per University Rules and Regulations.

LOGBOOKS

In accordance with University policy, maintaining logbooks and Portfolios and Assignments completion is a criteria of Formative Assessment and for eligibility for Summative Assessment. Each resident is allotted a registration number and is required to make entries of all work performed and the academic activities undertaken in logbooks on a daily basis. The concerned supervisor is required to verify the entries made by the resident. This system ensures timely entries by the resident and prompt verification by the supervisor to record the progress of the residents.

Content

AWARD OF FELLOWSHIP

: 1Eligibility Criteria

.**MD Family Medicine is awarded to those applicants who have:**

• A recognized medical degree
• Completed one year house job in a recognized institution

Registration with PMDC

• Passed the relevant Entrance Test as per university criteria and Interview
•• Undergone specified years of supervised accredited training on whole time basis
• Passed IMM examination
• Obtained approval of dissertation / two research articles (related to the specialty) published / accepted for publication in UNIVERSITY approved journal(s)
• Completed entries in e-logbook along with validation by the supervisor
• Been declared successful in examinations carried out by the Examination Department by the University

TRAINING ENQUIRIES AND REGISTRATION

All residents should notify the University in writing of any change of address and proposed changes in training (such as change of Supervisor, change of department, break in training etc.) as soon as possible

General Regulations

DURATION OF TRAINING IN FAMILY MEDICINE

Total duration of the training is 4 years, divided into the following two phases:

• Intermediate Module in Family Medicine for first two years, after which the resident becomes eligible to appear in the Intermediate Module Examination.
• Last two years consist of advanced training in Family Medicine known as MD-Part II.

All phases of training inclusive of rotations are to be completed one month before the date of theory examination.

REGISTRATION ANDSUPERVISION

All training must be supervised and undertaken on full time basis.
The residents are not allowed to work simultaneously in any other department/institutions for financial benefit and/or for another academic qualification.

ROTATIONS

INTERMEDIATE MODULE (IMM) – 2 YEARS: ROTATIONS

- **Medicine & Allied 1** – 9 months
- **General Surgery** – 03 months
- **Obstetrics & Gynecology** – 03 months
- **Pediatrics** – 03 months
- **Family Medicine Clinics** – 06months

MD-II – 3 YEARS: ROTATIONS

- **Emergency Room / Casualty** – 03 months
- **Surgery and Allied 2** – 03 months
- **Paediatrics** (includes cases of Orthopedics, etc.) – 03 months
- **Psychiatry** – 03 months

Elective Rotations

- **Rural** – 03 months
- **Family Medicine Clinics** – 09 months
- It is the responsibility of the supervisor of Family Medicine to liaise with the Medicine and Allied specialties to ensure that each resident completes at least **3 months**, but not more than **6 months**, in **Internal Medicine**, and **1–2 months** in allied specialties: **Neurology**, **Gastroenterology**, **Dermatology**, **Cardiology**, **Pulmonology**, and **Endocrinology**, etc.
- **Surgery and Allied 2** includes rotations in **Orthopedics**, **ENT**, **Eye**, **Urology / Urogynecology**, as determined by the Family Medicine supervisor
  Residents during all rotations must spend one day in the Family Medicine department every week for CME/clinical discussion on the cases seen in their respective rotation.
- **MANDATORY WORKSHOPS AND COURSES**
  It is mandatory for all residents to attend the following workshops in the first two years of Intermediate Module training: 1. Introduction to Computer and Internet 2. Research Methodology, Biostatistics & Dissertation Writing 3. Communication Skills

4. Primary Surgical Skills Workshop 5. BLS & ACLS (Basic Life Support) course. Any other workshop/s may be introduced by the University. No candidate will be allowed to appear in IMM examination without attending the above-mentioned workshops and BLS & ACLS course.

- **RESEARCH (Dissertation/Two Papers)**
  One of the training requirements is a dissertation or two research papers on topics related to the field of specialization. Family Medicine synopsis of the dissertation must be submitted to Research and Evaluation Unit (REU) by the end of first year and should be approved before starting the research work. Topic/title of the papers should be submitted to Registration & Research Cell (R&RC) before submission of papers for publication. The dissertation or evidence of publication/acceptance of research paper must be submitted six months prior to the examination for which the residents intend to sit in.
- **E-LOGBOOK**
  The University has made the e-logbook system mandatory for all Residency program residents inducted from April 2025. Upon registration with R&RC, each resident is allotted a registration number and a password to log on and make entries of all work performed and the academic activities undertaken in e-logbook on a daily basis. The concerned supervisor is required to verify the entries made by the resident. This system ensures timely entries by the resident and prompt verification by the supervisor. It also helps in monitoring the progress of residents and the vigilance of the supervisors.
- Roles and Responsibilities - Supervisor
  EXPERT TRAINER
  This is the most fundamental role of a supervisor. S/he has to not only ensure and monitor adequate training but also provide continuous helpful feedback (formative) regarding the progress of the training. This would entail observing the resident's performance and rapport with all the people within his/her work environment. S/he should teach the residents and help them overcome the hurdles during the learning process. It is the job of the supervisor to make the residents develop the ability to interpret findings in their patients and act suitably in response. The supervisor must be adept at providing guidance in writing dissertation/research articles (which are essential components of training). Every supervisor is required to participate actively in Supervisors' workshops, conducted regularly by UNIVERSITY, and do his/her best to implement the newly acquired information/skills in the training. It is his/her basic duty to keep abreast of the innovations in the field of expertise and ensure that this information percolates to residents of all years under him/her.
- **RELIABLE LIAISON**
  The supervisor must maintain regular contact with the University regarding training and various mandatory workshops and courses. It is expected that the supervisor will establish direct contact with relevant quarters of UNIVERSITY if any problem arises

during the training process, including the suitability of resident. S/he must be able to coordinate with the administration of his/her institution/organization in order to ensure that his/her residents do not have administrative problems hampering their training.

- **PROFICIENT ADMINISTRATOR**
  The supervisor must ensure that the residents regularly fill their e-logbook. S/he must provide quarterly feedback regarding each resident through the e-log system. S/he might be required to submit confidential reports on resident's progress to the University. The supervisor should notify the University of any change in the proposed approved training program. In case the supervisor plans to be away for more than two months, he/she must arrange satisfactory alternate supervision during the period.
- **Roles and Responsibilities - Resident**
  given the provision of adequate resources by the institution, residents should accept responsibility for their own learning and ensure that it is in accord with the requirements of the particular discipline. They should play an informed role in the selection of the supervisor. Seek reasonable infrastructure support from their institution and supervisor, and use this support effectively. Ensure that all outlined aspects of training are covered during the defined training period. Work with their supervisors in writing the synopsis/research proposal and submit the synopsis/research proposal by the end of the first year of their registration with the R&RC. Accept responsibility for the dissertation/research article and plan to execute the research within the time limits defined. Be responsible for arranging regular meetings with the supervisor to discuss and document progress. If the supervisor is not able/willing to meet with the resident on a regular basis, he/she must notify the University. Provide the supervisor with word processed updated synopsis and dissertation/research article drafts (ensure it has been checked for spelling, grammar and typographical errors, prior to submission) and provide the raw data to the supervisor if required. Submit completed dissertation to R&RC or evidence of publication/acceptance for publication of two research papers in UNIVERSITY approved journal(s) six months before the completion of (last year of) training. The resident should be the first or second author of both papers and the synopsis of both papers must have a prior approval of R&RC. Follow the University complaint procedure if serious problem arises.
- Training Programme
  CURRICULUM: AIMS AND OBJECTIVES
  The aim of the Fellowship Programme in Family Medicine is to produce specialists in the field who have attained the required competencies. By the end of the residency programme, the graduate will be able to: Identify and manage common acute and chronic healthcare problems prevalent in Pakistan in ambulatory and hospital settings. Use healthcare resources efficiently through coordination, teamwork and collaboration with other specialities, including provision of appropriate and timely

referral. Perform patient-centered consultations, developing a unique relationship with patients and their families. Promote health and prevent disease using appropriate evidence-based interventions/strategies. Exercise holistic healthcare approach in physical, psychosocial, cultural and spiritual context of patient, family and the community. Maintain continuity of care. Undertake primary healthcare research. Demonstrate leadership qualities in family medicine discipline to promote and develop the specialty in the country. Maintain comprehensive healthcare records of the patients. Use medical records and management information systems for quality assurance and to communicate the information to health system authorities for planning and development of healthcare facilities. Participate in undergraduate and postgraduate healthcare personnel teaching on regular interval. Participate in institutional and departmental organizational and administrative activities. Pursue self-directed continuous professional development. Analyse the influence of social, economic, and environmental factors on the health status of individuals and groups and suggest appropriate corrective and preventive measures.

UNIVERSITY COMPETENCYMODEL

The University has moved to competency-based medical education and has developed its own competency model shown below:

With patient or population care as the pivotal center, the inner leaves of the model represent the five major competencies directly related to patient care, while the three competencies in the outer circle are mega-competencies related to patient care and also incorporate education, professionalism, leadership, advocacy and population health.

By the end of the Residency Programme, residents are expected to acquire these competencies and their constituent learning outcomes, and provide promotive, preventive, curative and rehabilitative patient-centered (or population-centered) care.

Inner Leaves:

1. Knowledge and Critical Thinking
2. Technical Skills
3. Communication Skills
4. Teamwork
5. Research

Outer Leaves:

6. Professionalism

7. Pedagogy
8. Advocacy

1. Knowledge and Critical Thinking

• Demonstrate application of wide and current readings to critical thinking and problem solving
• Relate the alteration of body function to the presenting condition
• Interpret and integrate history and examination findings to arrive at an appropriate provisional and credible differential diagnoses
• Sequentially order, justify and interpret appropriate investigations
• Apply knowledge and reasoning skills to
• Analyze data for problem identification and to rule in and rule out contending conditions
• Synthesize and evaluate solutions for decision-making in solving familiar and less familiar problems based on best current evidence
• Prioritize different problems within a timeframe.
• Select, outline and provide, with evidence-based justifications, appropriate pharmacological and non-pharmacological management strategies
• Assess new medical knowledge and apply it to resolve patient problems (Evidence-based practice)
• Apply quality assurance procedures in daily work (Professionalism)
• Demonstrate shared-decision-making with the patient or family
• Provide cost-effective care while ordering investigations and in management
• Use resources appropriately
• Demonstrate awareness of bio-psycho-social factors in assessment and management of a patient.

2. Technical Skills

• Obtain an accurate history with sensitivity
• Perform an accurate physical and mental state examination, even in patients with complex health problems involving multiple systems
• Demonstrate International Patient Safety Goals (IPSG)
• Demonstrate competent performance of all required technical skills and procedures in their specialty, including:
• Obtaining informed consent
• Preoperative planning
• Pre-interventional care and preparation
• Intra-Intervention technique including exposure and closure, global and task specific items, and communication and team skills
• Post-interventional care
• Follow-up Care.

3. Communication Skills

• Written Communication Skills
• Maintain clear, concise, accurate and updated medical records

• Write clear, focused, evidence-based and logical management plans and discharge summaries
• Write respectful, clear and focused letters and referrals to other colleagues.
• Verbal Communication Skills: Demonstrate
• Effective interpersonal communication skills: clear, considerate and sensitive towards patients, their relatives, other health professionals and the public, and towards students
• Non-verbal communication skills:
• Empathy and respect towards patients and their relatives
• Effective counseling of the patient and the family with cultural sensitivity: explain options, educate them and promote joint decision-making.
• Appropriate verbal and body language on the campus and all work situations including seminars, bedside sessions, outpatient sessions and others
• Respect and tolerance for all health care professionals, including peers, juniors and seniors
• Clear, focused and logical presentation of cases.

4. Teamwork

• Demonstrate constructive team-communication skills.
• Facilitate collaborative group interaction as a team member to build strong teams demonstrating respect, tolerance and interdependence.
• Support other team members to grow
• Demonstrate willingness to assume responsibility and leadership as needed.

5. Research

• Interpret and use results of various research studies (critical appraisal)
• Conduct a research study individually or in a group by using appropriate
• Selection of research question(s) and objectives
• Research design and statistical methods to answer the research question
• Ethical and R&R C approval of the synopsis
• Demonstrate competence in academic writing by writing an appropriate dissertation and/or publishing research article(s) as a step towards resolving issues or concerns in their specialty
• Guide others in conducting research by advising about research methodology including study designs and statistical methods
• Demonstrate clear, focused and logical presentations of their research.

6. Professionalism

• Demonstrate the highest level of personal integrity: honesty, punctuality, regularity, timely task completion
• Deal with all patients in a non-discriminatory, prejudice-free manner, demonstrating the same level of care for every human being irrespective of gender, age, ethnic background, culture, socioeconomic status and religion
• Establish a trusting relationship with patients, their relatives and care-givers
• Deal with all patients with honesty, empathy and compassion, putting patients' needs first (altruism)
• Facilitate transfer of information important for promotion of health, prevention and

management of disease
• Encourage questioning by the patient and be receptive to feedback
• Pursue self-directed and life-long learning. Keep abreast of medical literature and assess new knowledge and apply it to resolve patient problems
• Know one's limitations and ask for help as needed from colleagues, consultations or referrals
• Apply quality assurance procedures for improvement in daily work
• Be a role model for others.

7. Ethics

• Maintain patient autonomy by demonstrating shared-decision-making with the patient and/or family
• Obtain informed consent, maintain patient confidentiality and do no harm
• Provide cost-effective care while ordering investigations and in management and use resources appropriately.

8. Leadership

• Demonstrate accountability for their decisions and actions, and that of their team
• Demonstrate willingness to assume leadership role(s) when needed in given situations or events (rush call/code)
• Change and bring about change as necessary, as a leader or supportive leader.

9. Pedagogy

Should be able to demonstrate competence in teaching skills:
• Effective clinical/community-based teaching
• Some evidence of acquisition of theory regarding learning and education
• Practice some of the best teaching methods.

10. Advocacy

Advocacy is needed at multiple levels:
• Advocacy for the Patient
• Doctors and nurses are the advocates of the patients, otherwise patients are likely to be lost in the system. All care should be timely, putting patients first.
• Advocacy for the Practice
• Working in a service or practice, doctors must highlight limitations and issues
• They must identify solutions for the problems, and recommend and implement improvements for the practice(s) and institutional system(s).
• Advocacy for the Health System and Society
• Know one's role in the Health System(s) and build strong referral systems
• Keep patient and community interests paramount, above one's own personal or professional interest
• Demonstrate advocacy for elimination of the social determinants of health
• Demonstrate advocacy for prevention of serious illnesses of their specialty/sub-specialty.
• For the Profession
• Strive for building trust in the public for your profession

• Demonstrate improvement and enhancement of profession, specialty and sub-specialty
• Be conscientious gate-keepers of their profession, specialty and subspecialty.

Competencies for IMMIN Family Medicine Rotation (3 Months)

Skill	Level
History Taking Skills	4
Examination Skills	2-3
Negotiating a Management Plan	2-3
Coordinating Care / Arranging Referrals	3
Screening and Preventive Care (Adult Vaccinations and Cancer Screening)	3
Patient Education	3
Breaking Bad News	3
Dealing with Angry Patients	3
Counseling Skills	3
Prescription Writing	3
Documenting Care	3
Consultation Skills	3
Presentation Skills	3
Home Health Care Visits (History, Examination, Counseling, Referral, and Follow-up)	1

Rotational Competencies for IMMIN Medicine and Allied (12 Months)

Skill	Level
Patient Management (History, Examination, Diagnosis, Treatment, Investigation, Referral and Follow-up)	3
Fluid Management	3
Peritoneal and Pleural Paracentesis	3
Lumbar Puncture	3
Cardiopulmonary Resuscitation (CPR)	3
Bone Marrow Aspiration	1
Joint Aspiration	3
Urethral Catheterization	3
Initial Care of Unconscious Patient	3
Administration of Enema	3
Nasogastric Intubation	3
Recording and Interpreting ECGs	3
Intramuscular Injections	3
Subcutaneous Injections	3
IV Cannulation	3
Setting Up IV Fluids	3
Adult Vaccinations	3
Nebulization	3
IV Medications	3

Skill	Level
Arterial Puncture	3
Interpretation of Common Medical Investigations (CBC, LFTs, RFTs, Electrolytes, Vaccines & Serology, TFTs, Lipid Profile, X-rays, ECG, Echocardiography, Ultrasound, CT Scan, MRI, Biopsies/FNAC)	3

Rotational Competencies for IMMIN Surgery and Allied (3 Months)

General Surgery Skills

Skill	Level
Eliciting Pertinent History	3
Performing Physical Examination	3
Formulating a Working Diagnosis	3
Ordering Appropriate Investigation	3
Interpreting Results of Investigation	3
Selecting Ambulatory Care / Hospitalization / Referral	3
Assessing for Fitness for Surgery	2
Deciding and Implementing Appropriate Treatment	3
Post-Operative Management and Monitoring	2
Maintaining Record and Follow-up of Patient	3
Pre-operative Preparation for Surgical Procedures	2

Minor Surgical Procedures

Procedure	Level
Incision and Drainage of Abscess (excluding deep-seated abscess)	3
Circumcision	3
Biopsy of Skin Lesions, Subcutaneous Lump or Swelling	2
Excision of Soft Tissue Tumors and Cysts (superficial)	2
Opening and Closing of Abdomen	1
Proctoscopy	3
Proctosigmoidoscopy	2
Band Ligation for Hemorrhoids	2
Breast Examination	3
Aseptic Technique for Surgical Procedures	3

Rotational Competencies for IMMIN Obstetrics & Gynecology (3 Months)

Obstetrics (Antenatal OPD and Wards)

Skill	Level
Patient Management	3
Eliciting Pertinent History (Obstetrical and Gynecological Patients)	3
Performing Physical Examination (Obstetric and Gynecological)	3
Formulating a Working Diagnosis	3
Ordering and Interpreting Investigations	3
Selecting Ambulatory Care / Hospitalization / Referral	3
Deciding and Implementing Appropriate Treatment	3
Maintaining Record and Follow-up	3

Skill	Level
Basic Use of Ultrasound	2
Fetal Monitoring (Including Interpretation of CTG)	2
Management of Medical Disorders in Pregnancy	2
Managing Immediate Complications	2

Obstetrics (Intrapartum – Labor Room)

Skill	Level
Assessment on Admission	3
Induction of Labour	2
Management of Normal Labour	3
Performing and Repairing Episiotomy	3
Immediate Management of Postpartum Hemorrhage	3
Outlet Forceps Delivery	2
Vacuum Extraction	2
Cesarean Section	2
Complicated Deliveries	1

Postnatal Care

Skill	Level
Resuscitation of Neonate	3
Examination of Neonate	3
Contraception Advice	3
Insertion of I.U.C.D	3

Skill	Level
Management of Common Postnatal Problems	3

Gynecology OPD and Ward Procedures

Skill	Level
P/S and P/V Examination	3
Pre-operative Preparation	2
Insertion of Vaginal Pessary	3
Colposcopy	1
Hysterosalpingography	1

Operative Gynecology

Skill	Level
Scrubbing	3
Pre-operative Preparation	3
Evacuation of Retained Products of Conception	2
Dilatation & Curettage	2
Colposcopy	1
Pap Smear	3
Marsupialization of Bartholin's Cyst	2
Minilaparotomy (for Tubal Ligation)	2
Hysteroscopy and Endometrial Biopsy	1

Rotational Competencies for IMMIN Pediatrics (3 Months)

Skill	Level
Eliciting Pertinent History	3
Performing Physical Examination	3
Formulating a Working Diagnosis	3
Ordering and Interpreting Investigations	3
Selecting Ambulatory Care / Hospitalization / Referral	3
Deciding and Implementing Appropriate Treatment	3
Maintaining Record and Follow-up	3
Counseling in Pediatrics	3

Neonatology

Skill	Level
Well Baby Management	2-3
Management of Sick Neonate	2-3

Pediatric Emergencies

Skill	Level
Management of Pediatric Emergencies	2

Pediatric Procedures

Skill	Level
Venous Cannulation	3
Lumbar Puncture	2
Cardiopulmonary Resuscitation	3
Urethral Catheterization	3
Administration of Childhood Vaccinations (EPI Schedule + Additional Vaccines)	3

ASSESSMENT

ELIGIBILITY REQUIREMENTS FOR IMM INTERMEDIATE EXAMINATION

To appear in the Intermediate Module (IMM) Examination, a candidate must:

- Have completed two years of training under an approved supervisor at an institution recognized by the University. A certificate of completion of training must be submitted.
- Have completed all entries in the e-logbook, validated by the supervisor.
- Have submitted certificates of attendance for all mandatory workshops.
- Have submitted a synopsis of a dissertation or research article.

EXAMINATION SCHEDULE

- The Intermediate Module Examination will be held after **two years** of training.
- The University will notify any changes regarding examination centers, dates, or formats.
- A competent authority appointed by the University may **debar** any candidate from the examination if found guilty of misconduct, use of unfair means, or other disciplinary violations.

EXAMINATION FEES

- Applications along with the prescribed examination fees and required documents must be submitted by the last date notified for each examination.
- The details of examination fees, subject fees, etc., will be notified separately before each examination.

REFUND OF FEES

- If a candidate decides not to appear after submitting an application, a **written request** for a refund must be submitted before the last date for withdrawal, along with the application receipt.
    - In such cases, **75% of the fee** will be refunded.
- No refund will be granted after the closing date for receipt of applications.
- If an application is **rejected by the University**, 75% of the examination fee will be refunded, and 25% will be retained as a **processing charge**.
- No refund will be made for fees paid for **other reasons** (e.g., late fee, change of center/subject fee).

FORMAT OF EXAMINATION

The examination will consist of **two components**:

THEORY EXAMINATION

- Two papers, each of **three hours** duration:
  - **Paper I**: 10 Short Answer Questions (SAQs)
  - **Paper II**: 100 Single Best Answer Multiple Choice Questions (MCQs)

CLINICAL EXAMINATION

- 10–12 stations based on OSCE (Objective Structured Clinical Examination).

OSCE (Objective Structured Clinical Examination)

- Task-Oriented Assessment of Clinical Skills (OSCE) has been introduced since November 2001 in MD examinations.
- All stations are **interactive**.
- Candidates will be required to perform a clinical task, such as:
  - Taking history
  - Performing physical examination
  - Counseling a patient
  - Assembling an instrument
  - Any other clinical skill
- One examiner will be present at each station to:
  - Rate the performance
  - Test critical thinking and problem-solving skills

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 should be for developing clinical competence and to complete the compulsory WPBA.

This assessment will be done by means of following assessment tools:

Assessment	Formative	Summative
Knowledge	MCQs, OSCE	MCQs, OSCE
Skills	WPBA (DOPS, mini CEX)	OSCE, PSA
Behaviour	WPBA (Portfolio, COT, CBD)	OSCE

WPBA Work place based assessment

CBD Minimum 1-2 per module
Mini CEX 1 per system
COT Total - 4
DOPS Total - 10

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

SECTION- IV

AWARD OF DEGREE

REFERENCES

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

SELF DIRECTED LEARNING (SDL) RESOURCES

1. SOPs for communicable disease response and control
   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
3. Guidelines for Measles
   http://www.pshealth.punjab.gov.pk/Home/Sops_guidelines
4. Guidelines for Pandemic Influenza (H1N1)
   http://www.pshealth.punjab.gov.pk/Home/Sops_guidelines
5. Guidelines for Zika virus disease
   http://www.pshealth.punjab.gov.pk/Home/Sops_guidelines
6. Guidelines for prevention of Hepatitis A & E
7. Guidelines for the management of Gastroenteritis
8. Guidelines for the management of Dengue hemorrhagic fever
9. Guidelines for the management of respiratory tract infections

MANDATORY TEXTBOOKS

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

Learning Resources

List Required Textbooks

1 Oxford Hand Book of General Practice (4th Edition)
Chantal Simon, Hazel Everitt, Francoise van Dorp, Matt Burkes
ISBN 978-0-19-874909-7

1 Current Diagnosis and treatment - Family Medicine (4th 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)

2 Text book of Family Medicine (9th 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)

3 Family medicine Principles and practice (7th 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

- Detection, Evaluation, and Management of High Blood Pressure in Adults https://www.ahajournals.org/doi/pdf/10.1161/HYP.0000000000000065
- Introduction: Standards of Medical Care in Diabetes—2019 https://care.diabetesjournals.org/content/diacare/suppl/2018/12/17/42.Supplement_1.DC1/DC_42_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=EmmjwgwHkO0
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=FqSCfqoCNiI
9. How to use the ophthalmoscope
   https://www.youtube.com/watch?v=NE_epHjNpfo
10. How to apply a 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=8jnCDQDzbAc
    https://www.youtube.com/watch?v=WXA5Ha3P7PE
    https://www.youtube.com/watch?v=150jl5ChCb8
    https://www.youtube.com/watch?v=bw__wWpHg-E
    https://www.youtube.com/watch?v=pK01AfxMBtk

LIST OF ABBREVIATIONS

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

LIST OF ABBREVIATIONS

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