FAMILY MEDICINE
A Guide to the Four Year Specialty Training Program
# Contents

Introduction ................................................................................................................................. 1  
Program Administrators ................................................................................................................. 2  
Program Brief ................................................................................................................................. 3  
Educational Objectives ................................................................................................................... 4  
Program Outline .......................................................................................................................... 7  
Core Curriculum .......................................................................................................................... 8  
Syllabus ..................................................................................................................................... 9  
Theoretical Knowledge .................................................................................................................. 13  
Practical Skills ............................................................................................................................... 15  
Clinical Research ......................................................................................................................... 16  
Specific Yearly Training Objectives ............................................................................................... 18  
Rotation Objectives ..................................................................................................................... 20  
Glossary of Abbreviations ............................................................................................................. 25  
References .................................................................................................................................. 25
Introduction

Family physicians possess unique attitudes, skill set and knowledge which qualify them to provide ongoing, comprehensive medical care to each member of the family. They are trained to diagnose and treat a wide variety of ailments in patients of all ages. Special emphasis is placed on prevention of disease and the primary health care (PHC) of entire families, utilizing consultations and community resources. Statistical evidences prove more patient visits being made to family physicians rather than other specialties.

According to the American Academy of Family Physicians, the demand for family physicians far surpasses the demand for all other specialties. Health care systems are particularly reliant on family physicians because of their ability to practice with the greatest cost efficiency.

Family physicians play a major role in integrating and coordinating care provided to patients and their families. They are responsible for the implementation of the concept of PHC through their work in general practice. Therefore, a well-designed and effective training program in family medicine should be an essential component of our medical services.

The mission of the Family Medicine Program is to provide the community of Dubai as well as other emirates in United Arab Emirates with highly qualified family physicians, through continuous planning and quality assurance in all aspects of the training program. The program aims to provide postgraduate training in family medicine, to become an international model for innovative teaching and training.

Goals and Objectives

Upon completion of training, a resident in Family Medicine (General Practice) is expected to be a competent specialist in Family Medicine (General Practice), capable of independent practice in the specialty.

The goals and objectives may be summarized as follows, whereby the resident must:

- Acquire theoretical knowledge of the specialty, including its foundations in the basic medical sciences and research.
- Attain attitude and skills common to Family Medicine.
- Demonstrate knowledge of the pathophysiology, presentation of historical and clinical features, and appropriate investigation and medical management of acute and chronic disease processes.
- Be able to identify, diagnose and treat single or multi-system disease with appropriate prioritization of patient problems.
- Demonstrate the knowledge and attitude relating to gender, culture and ethnicity pertinent to Family Medicine.
- Demonstrate ability to incorporate gender, cultural & ethnic perspectives in research methodology, data presentation and data analysis.
- Possess self-evaluation and learning skills in the areas of problem-solving, evidence based medicine and critical appraisal at a level to ensure that they remain effective clinicians, teachers & investigators throughout their career.
Program Administrators

Our Program Administrators in partnership with an expert team of supervisors & faculty steer the Family Medicine Program towards the zenith of quality Residency training education offered in Dubai.

Under their expert care, your training journey is guaranteed to be an enlightening experience.

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**Program Brief**

The Postgraduate Training in Family Medicine is a four-years training program in which resident receives broad range of training in all major medical subspecialties. The first two and half years are predominantly based in the hospital. During the other one and half years, there is a much greater component of ambulatory family medicine.

The course begins with a one-month Introduction to Family Medicine. Residents have received block rotations in Pediatrics, Internal Medicine, Accident and Emergency Medicine, Surgery, Obstetrics & Gynecology, Psychiatry, Geriatrics, Ophthalmology, ENT, Dermatology, Community medicine and Public Health.

There are specific sessions on the following generic topics: teaching areas include, physician/patient communications, consulting skills, problem-solving, medical ethics, community screening, disease prevention, evidence based medicine, quality and medical audits, planning and health management.

During the 4 years of Residency, residents are attached to one of the teaching primary health care centers in Dubai.

**Family Medicine Academic days and Teaching Methodology**

Throughout the four years of residency, trainees are released from the hospitals and health centers for one day per week to attend an organized academic day program at the teaching primary health care center.

The program includes small group work, case studies, problem-based learning, random case analysis, role plays, evidence based reading and other activities presentations by the residents and trainers.

Active methods of teaching and learning are used in the health centers, like problem-solving, case discussion, random case analysis, direct clinical training in health centers, tutorials with applications in a community context and patient-centered care.

Daily discussions with trainers and instructors will help identify learning needs, plan self-learning activities and encourage self-directed and life-long learning.

**Assessment of residents**

Hospital departments do evaluation for residents at completion of every rotation to ensure residents have acquired the relevant clinical competencies.

In the health center rotations, performance assessment is carried out by the supervisors and trainers for all residents on completion of rotation and modules. In addition evaluation is done based on their logbook and their performance on academic day program.

**Formative Assessment**

End of Rotation Examination: At the end of each rotation the resident will set for end of rotation examination, this will form part of their formative assessment.

**Summative Assessment**

End of Year Assessments: On successfully completing the training requirements for each phase the resident will sit an examination consisting of a written paper, an OSCE examination, and oral examination. The results of these examinations will be used to determine the resident’s readiness to progress to proceed to the next level of training or to sit the Board Examinations. Other components used will be the assessments in the various rotations, the logbook, supervisor reports and satisfactory attendance and participation in all aspects of the training program.

**Mentors**

Each resident will have a trainer family physician who will act as his or her mentor. The residents are expected to meet with their supervisors on a regular basis, the minimum being once in every week. This time can be used to discuss their learning progress and deal with any problem they may be experiencing in the program.

**Certification**

At the end of the program the residents are eligible to sit the Arab Board of Family Medicine examinations.

This specialty-training program for family medicine is a collaborative program involving the Dubai Health Authority, and The Arab Board for Medical Specialization in Family Medicine.

The Training Program had been recognized by the Arab Board for medical specialization in Family Medicine. On successful completion of the four-year program, residents will receive the ‘Report of Satisfactory Completion of Training. They will then be recommended as eligible to sit the Arab Board examination in Family Medicine.

The training process also enables residents to sit the MRCGP (INT) after completion of the third year of training.
Educational Objectives

Medical Expert/Clinical Decision-Maker

Specialists possess a defined body of knowledge and procedural skills, which are used to collect and interpret data, make appropriate clinical decisions, and carry out diagnostic and therapeutic procedures within the boundaries of their discipline and expertise. Their care is characterized by up-to-date, ethical, and cost-effective clinical practice and effective communication in partnership with patients, other health care providers, and the community. The role of medical expert/clinical decision-maker is central to the function of Specialists, and draws on the competencies included in the roles of scholar, communicator, health advocate, manager, collaborator, and professional.

General Requirements
- Diagnostic & therapeutic skills for ethical and effective patient care using the best available medical practices.
- Access & application of relevant information to clinical practice.
- Effective consultation services with respect to patient care and education.
- Understanding of medico-legal issues as they apply to Specialists.

Specific Requirements
- Elicit, present & document history that is relevant, concise, accurate and appropriate to the patient’s problem(s).
- Perform, interpret the findings of, present & document a physical examination that is relevant and appropriate.
- Select medically appropriate investigative tools, interpret the results of common diagnostic tests and demonstrate an understanding of their cost effectiveness, limitations and complications.
- Frame a comprehensive patient problem list, produce an effective diagnostic/therapeutic plan & establish appropriate follow up
- Demonstrate effective consultation skills in presenting well-documented assessments & recommendations in written/verbal form
- Be able to assess, diagnose, and manage patients with common diseases in the appropriate setting (emergency and ambulatory).
  Also, to demonstrate an understanding of the epidemiology of such conditions.
- Expertise in the management of Multi-system and/or undifferentiated disease, Medical complications of pregnancy and Preoperative care - Issues related to health maintenance and disease prevention.
- Application of knowledge & technical expertise in performing common general practice procedures, interpreting the results and demonstrating an understanding of their limitations and complications:
- Retrieve, critically appraise and apply relevant information to clinical practice.
- Understanding of basic pharmacology and its application to clinical practice.

Communicator

To provide humane, high-quality care, specialists establish effective relationships with patients, other physicians, and other health professionals. Communication skills are essential for the functioning of Specialists, and are necessary for obtaining information from, and conveying information to patients and their families. Furthermore, these abilities are critical in eliciting patients’ beliefs, concern & expectations about their illnesses, and for assessing key factors impacting patients’ health.

General Requirements
- Establish therapeutic relationships with patients/families.
- Obtain and synthesize relevant history from patients/families/communities.
- Listen effectively; Discuss appropriate information with patients/families and the health care team.

Specific Requirements
- Recognizing that being a good communicator is an essential function of a Family physician (general Practitioner), and understanding that effective doctor-patient communication can foster patient satisfaction and compliance as well as influence the manifestations and outcome of a patient’s illness.
- Establishment of patient relations characterized by understanding, trust, respect, empathy & confidentiality.
- Ability to communicate professionally and compassionately, while considering the influence of factors such as the patient’s age, gender, sexuality, and ethnic cultural and socio-economic background.
- Skills in providing clear, concise and timely verbal and written communication as applied to consultation notes, sign over of patient care and management plans; communication with patients and families regarding informed consent, the medical condition, plan of treatment, prognosis, primary and secondary prevention, adverse events, medical uncertainty, & medical errors; and communication with other health care professionals regarding all aspects of patient care.
Collaborator

Specialists work in partnership with others who are appropriately involved in the care of individuals or specific groups of patients. It is therefore essential for Specialists to be able to collaborate effectively with patients & a multidisciplinary team of expert health professionals for provision of optimal patient care, education, and research.

General Requirements
- Effective consultation with other physicians and health care professionals.
- Effective contribution to other interdisciplinary team activities.

Specific Requirements
- Ability to Identify & describe the role, expertise & limitations of all members of an interdisciplinary team required to optimally achieve a goal related to patient care, a research problem, an educational task or an administrative responsibility.
- Development of a care plan for a patient they have assessed, including investigation, treatment and continuity of care, in collaboration with members of the interdisciplinary team, the patient and the family.
- Participation in an inter-physician or an interdisciplinary team meeting, demonstrating the ability to accept, consider and respect the opinions of other team members, while contributing specialty-specific expertise.

Manager

Specialists function as managers when they make everyday practice decisions involving resources, co-workers, tasks, policies, and their personal lives. They do this in the settings of individual patient care, practice organizations, and in the broader context of the health care system. Thus, Specialists require the abilities to prioritize and effectively execute tasks through teamwork with colleagues, and make systematic decisions when allocating finite health care resources. As managers, Specialists take on positions of leadership within the context of professional organizations and the health care system.

General Requirements
- Utilize resources effectively to balance patient care, learning needs, and outside activities.
- Allocate finite health care resources wisely; Work effectively and efficiently in a health care organization.
- Utilize information technology to optimize patient care, life-long learning and other activities.

Specific Requirements
- Appropriate time management for effective patient care, administrative duties and scholarly activities.
- Recognition of business and financial skills needed for a successful medical practice and/or academic career.
- Implementation patient care practices considering available health care resources.
- Understanding population-based approaches to healthcare services and its implication for medical practice.
- Demonstrate conflict resolution skills.

Health Advocate

Family Physicians recognize the importance of advocacy activities in responding to the challenges represented by those social, environmental, and biological factors that determine the health of patients and society. They recognize advocacy as an essential component of health promotion that occurs at the level of the individual patient, the practice population, and the broader community. Health advocacy is appropriately expressed both by the individual and collective responses of Family Physicians in influencing public health & policy.

General Requirements
- Identifying the important determinants of health affecting patients.
- Contributing effectively to improved health of patients and communities.
- Recognizing and responding to those issues where advocacy is appropriate.

Specific Requirements
- Educating & promoting to patients and families about the importance of long-term healthy behaviors and preventive health care (e.g. smoking cessation, screening tests, vaccinations, exercise, and nutrition).
- Respecting and empowering patient autonomy; Promoting equitable health care.
- Applying the principles of quality improvement and quality assurance.
- Appreciate the existence of global health advocacy and initiatives for elimination of poverty and disease, (e.g. tuberculosis, malaria, Acquired Immune Deficiency Syndrome).
Scholar

Family Physicians (General Practitioners) engage in a lifelong pursuit of mastery of their domain of professional expertise. They recognize the need to be continually learning and model this for others. Through their scholarly activities, they contribute to the appraisal, collection, and understanding of health care knowledge, and facilitate the education of their students, patients & others.

General Requirements
- Develop, implement and monitor a personal continuing education strategy.
- Critically appraise sources of medical information; Facilitate learning of patients, house staff, students and other health professionals; Contribute to development of new knowledge.

Specific Requirements
- Understanding principles of scientific research & how it applies to the development & implementation of a research proposal.
- Understanding how to search and critically appraise the medical literature. Develop lifelong learning skills.
- Ability to teach medical students, residents, patients, colleagues and other health care professionals;

Professional

Specialists, as professionals, have a unique societal role with a distinct body of knowledge, skills, and attitudes dedicated to improving the health and well-being of others. Family Physicians (General Practitioners) are committed to the highest standards of excellence in clinical care and ethical conduct, and to continually perfecting mastery of their discipline.

General Requirements
- Deliver highest quality care with integrity, honesty and compassion.
- Exhibit appropriate personal and interpersonal professional behaviors.
- Practice medicine ethically consistent with obligations of Family Physicians (General Practitioners).

Specific Requirements
Discipline-based objectives:
- Display attitudes commonly accepted as essential to professionalism.
- Evaluate oneself and use appropriate strategies to maintain and advance professional competence.

Personal/Professional Boundary Objectives:
- Strive to heighten personal & professional awareness, explore & resolve interpersonal difficulties in professional relations.
- Strive to balance personal and professional roles and responsibilities; Attempts to resolve conflict and role strain.

Objectives related to Ethics and Professional Bodies:
- Know and understand the professional, legal and ethical codes to which Family Physicians are bound.
- Recognize, analyze and attempt to resolve in clinical practice ethical issues like consent, advanced directives, confidentiality, end-of-life care, conflict of interest, resource allocation, research ethics, and interaction with pharmaceutical industry.
- Application of relevant legislation relating to the healthcare system in order to guide one’s clinical practice.

Recognize how to deal with unprofessional behaviors in medical practice, taking into account local and provincial regulations.
Program Outline

Residents will enter the program having received a broad foundation in several aspects of general medicine and surgery during their internship year. Fundamental to the program is a graded increase in responsibility for the resident as they proceed through the training. This level of responsibility will be dependent on their ability, experience and level of training. Appropriate levels of supervision for the trainee will be maintained throughout the program to maximize educational opportunities as well as to optimize patient care and satisfaction.

<table>
<thead>
<tr>
<th>Year</th>
<th>Particulars</th>
<th>Duration (weeks)</th>
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<tr>
<td>YEAR 1</td>
<td>Introduction to Family Medicine</td>
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<td>Internal Medicine</td>
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<td>Obstetrics &amp; Gynecology</td>
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<td>Family Medicine (I)</td>
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<td></td>
<td>Annual Leave</td>
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<td><strong>Total duration in Year 1</strong></td>
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<td>YEAR 2</td>
<td>Pediatrics</td>
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<td>Surgery</td>
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<td></td>
<td>Orthopedics</td>
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<tr>
<td></td>
<td>Psychiatry</td>
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<tr>
<td></td>
<td>Family Medicine (II)</td>
<td>12</td>
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<td></td>
<td>Annual Leave</td>
<td>4</td>
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<tr>
<td><strong>Total duration in Year 2</strong></td>
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<td>YEAR 3</td>
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<tr>
<td></td>
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<td></td>
<td>Community Medicine (I)</td>
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<td>Family Medicine (III)</td>
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<tr>
<td>YEAR 4</td>
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<td><strong>Total duration in Year 4</strong></td>
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<td><strong>TOTAL</strong></td>
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Elective

Resident will be given the opportunity for additional experience in an area of interest that may be outside of the prescribed selective experiences. This 8 week elective period will be in an area to be chosen by the resident in consultation with the Program Director.

Outline of Academic Days Curriculums

**First year academic day curriculum outline**
- Being a General Practitioner
- Consultation skills in General Practice
- Ethics and Values Based Medicine
- Evidence-based Practice
- Healthy People: promoting health and preventing disease
- Chronic medical problems

**Second year academic day curriculum outline**
- Care of Children and Young People
- Women’s health
- Management in Primary Care
- Sexual Health
- ENT and facial problems
- Genetics in Primary Care
- Men’s health

**Third year academic day curriculum outline**
- Care of Acutely Ill People
- Teaching/Mentoring/Clinical Supervision
- Care of Older Adults
- Skin problems
- Rheumatology & conditions of musculo-skeletal system
- Drug & Alcohol problems Care of People with Mental Health Problems

**Fourth year academic day curriculum outline**
- Eye problems
- Care of People with Cancer
- Palliative Care
- Care of people with Learning Disability
- Care of people with Learning Disability
Core Curriculum

Definition of Family Practice
Family practice is the medical specialty, which provides continuing and comprehensive health care for the individual and the family. It is the specialty in breadth, which integrates the biological, clinical, and behavioral sciences. The scope of family practice encompasses all ages, sexes, each organ system and every disease entity. AAFP (2003)

Quality Healthcare in Family Practice
Quality healthcare in family practice is the achievement of optimal physical and mental health through accessible, cost-effective care that is based on best evidence, responsive to the needs and preferences of patients and populations, and respectful of patients’ families, personal values, and beliefs. AAFP (2000)

Scope, Philosophical Statement
Family practice is the continuing and current expression of the historical medical practitioner. The first physicians were generalists. For thousands of years, these generalists provided all of the medical care available. They diagnosed and treated illnesses, performed surgery, and delivered babies. As medical knowledge expanded and technology advanced, many physicians chose to limit their practices to specific, defined areas of medicine. With World War II, the age of specialization began to flourish. In the two decades following the war, the number of specialists and sub-specialists increased at a phenomenal rate, while the number of general practitioners declined dramatically. The public became increasingly vocal about the fragmentation of their care and the shortage of personal physicians who could provide initial, continuing and comprehensive care. Thus began the reorientation of medicine back to personal, primary care. The concept of generalist was reborn with the establishment of family practice as a specialty.

In summary, the family physician of today is rooted in the historical generalist tradition. The specialty is three dimensional, combining knowledge and skill with a unique process. The patient-physician relationship in the context of the family is central to this process and distinguishes family practice from other specialties. Knowledge and skills vary among family physicians according to their patients’ needs and the ability to incorporate new information into their practices. Above all, the scope of family practice is dynamic, expanding, and evolutionary. AAFP (1992) (1998)

The following four principles will be used as a guide during this training

The family physician is a skilled clinician
Family physicians demonstrate competence in the patient-centered clinical method; they integrate a sensitive, skillful, and appropriate search for disease. They demonstrate an understanding of patients’ experience of illness (particularly their ideas, feelings, and expectations) and of the impact of illness on patients’ lives.

Family physicians use their understanding of human development and family and other social systems to develop a comprehensive approach to the management of disease and illness in-patients and their families.

Family physicians are also adept at working with patients to reach common ground on the definition of problems, goals of treatment, and roles of physician and patient in management. They are skilled at providing information to patients in a manner that respects their autonomy and empowers them to “take charge” of their own care and make decisions in their best interests.

Family physicians have an expert knowledge of the wide range of common problems of patients in the community, and of less common, but life threatening and treatable emergencies involving patients of all age groups. Their approach to health care is based on the best scientific evidence available.

Family medicine is a community-based discipline
Family practice is based in the community and is significantly influenced by community factors. As a member of the community, the family physician is able to respond to people’s changing needs, to adapt quickly to changing circumstances, and to mobilize appropriate resources to address patients’ needs.

Clinical problems presenting to a community-based family physician are not pre-selected and are commonly encountered at an undifferentiated stage. Family physicians are skilled at dealing with ambiguity and uncertainty. They will see patients with chronic diseases, emotional problems, acute disorders (ranging from those that are minor and self-limiting to those that are life threatening), and complex bio-psychosocial problems. Finally, the family physician may provide palliative care to people with terminal diseases.

The family physician may care for patients in the office, the hospital (including the emergency department), other health care facilities, or the home. Family physicians see themselves as part of a community network of health care providers and are skilled at collaborating as team members or team leaders. They use referral to specialists and community resources judiciously.

The family physician is a resource to a defined practice population.

The family physician views his or her practice as a “population at risk”, and organizes the practice to ensure that patients’ health is maintained whether or not they are visiting the office. Such organization requires the ability to evaluate new information and its relevance to the practice, knowledge and skills to assess the effectiveness of care provided by the practice, the appropriate use of medical records and/or other information systems, and the ability to plan and implement policies that will enhance patients’ health.

Family physicians have effective strategies for self-directed, lifelong learning.

Family physicians have the responsibility to advocate public policy that promotes their patients’ health.

Family physicians accept their responsibility in the health care system for wise stewardship of scarce resources. They consider the needs of both the individual and the community.

The patient-physician relationship is central to the role of the family physician.

Family physicians have an understanding and appreciation of the human condition, especially the nature of suffering and patients’ response to sickness. They are aware of their strengths and limitations and recognize when their own personal issues interfere with effective care. Family physicians respect the privacy of the person. The patient-physician relationship has the qualities of a covenant – a promise, by physicians, to be faithful to their commitment to patients’ well-being, whether or not patients are able to follow through on their commitments. Family physicians are cognizant of the power imbalance between doctors and patients and the potential for abuse of this power.

Family physicians provide continuing care to their patients. They use repeated contacts with patients to build on the patient-physician relationship and to promote the healing power of interactions. Over time, the relationship takes on special importance to patients, their families, and the physician. As a result, the family physician becomes an advocate for the patient. (CFPC 1996 2000)
The first aim of the syllabus is to set out, for the benefit of candidates, a description of the depth of the knowledge and attributes expected of them. The syllabus thus provides a template on which a training program of family medicine can be constructed. The second aim is to provide a frame of reference for trainers as they set schedules and undertake development of training.

It is to be noted that while this syllabus is comprehensive, it should not be taken as an exhaustive or exclusive list of the topics which may be covered in training. The absence of any relevant topic from the syllabus should not be taken as a guarantee that it will not be included in the Examination. This syllabus will inevitably tend to become out of date as the content and context of general practice evolve. Moreover, the syllabus will reflect continuing developments in the curriculum of vocational training and in assessment methodology and policy. Therefore we intend to update it on a regular, probably annual, basis. Candidates should ensure that they refer to the version current at the time of application.

A number of important themes, e.g. doctor-patient communication or evidence-based practice inevitably cross the arbitrary boundaries of categorization used in this document. A certain amount of apparent duplication of items in different sections is therefore unavoidable; we hope readers will be tolerant of this and will take it as indicating the importance attached to the recurring theme. However, an exact one-to-one mapping of sections from these antecedents onto the syllabus has not been rigidly attempted. For the purpose of guiding candidates’ training, it was found necessary to expand some areas very considerably (notably clinical knowledge and skills), and to highlight others (e.g. ‘generalist skills’, ‘risk management’, ‘population, preventive and societal issues’ and ‘research & evaluation methods’) in order to afford them their necessary prominence within this syllabus.

While the syllabus in the context of primary care, it also reflects the broader principles set out in The European Definition of General Practice / Family Medicine, published by WONCA Europe in 2002. This document lists in a context-independent form eleven central characteristics which define the discipline of primary care & clusters them into six core competencies:

1. Primary care management
   - Managing primary contact with patients
   - Coordinating care with other professionals

2. Person-centered care
   - Adopting a person-centered approach
   - Developing the consultation and the doctor/patient relationship
   - Providing Continuity of care

3. Specific problem-solving skills
   - using knowledge of the community prevalence of illness

4. Comprehensive approach
   - Managing undifferentiated or serious conditions appropriately
   - Managing acute and chronic problems simultaneously

5. Community orientation
   - Applying health promotion and disease prevention strategies
   - Reconciling the needs of individuals and communities

6. Holistic modeling
   - Using bio-psycho-social, cultural and existential dimensions

This syllabus aims produce competence in the following areas:

- Good medical practice and care
- Generalist skills
- Doctor-patient relations, communication & consulting skills
- Professional, ethical and legal obligations
- Population, preventive and societal issues
- Information management and technology
- Risk management
- Monitoring performance quality, audit & clinical governance
- Continuing Professional Development, learning & teaching
- Working with colleagues
- Organizational, administrative and regulatory framework
- Practice management

Good medical practice and care

- Being able to recognize and manage medical conditions in the following broad categories:
  - Common
  - Preventable
  - Treatable
  - Uncommon but serious
  - Atypical or non-diagnosable
  - Untreatable
  - Potentially catastrophic viz. life-threatening or disabling
- Elucidating and evaluating a patient’s condition, based on information gathering (history and symptoms) and, when necessary, clinical examination (interpreting signs) and appropriate procedural skills and/or special tests
- Demonstrating the ability to make competent clinical decisions (diagnosis) and selection of appropriate investigation and/or treatment and knowing when no investigation or treatment is indicated
- Employing sound skill-based clinical judgment to assess the seriousness of an illness in order to prioritize care
- Respecting the autonomy of patients as partners in medical decision-making
- Recognizing and working within the limits of one’s professional competence, showing a willingness to consult with colleagues, and where appropriate delegating or referring care to those who are recognized as competent
- Performing consistently well and with a commitment to improving one’s competence
- Practicing ethically, honestly & with integrity, so that patients can safely entrust the doctor, their life & well-being/
- Accepting the responsibility of being available and accessible to patients
- Having knowledge of, and assisting patients to access, additional sources of information e.g. alternative and complementary health care, local and national support groups, voluntary and self-help organizations.
Generalist skills

While many of the following attributes are required of specialists as well as generalists, in general practice they assume sufficient prominence to merit stating in their own right. Ability to integrate the various skills is more important than possession of any one

- Treating the patient as a unique person and being an advocate for the individual patient
- Providing longitudinal or continuous care
- Simultaneously managing both acute and ongoing problems
- Integrating information on physical, psychological, social and cultural factors which impact on patients
- Demonstrating an appropriately focused assessment of a patients’ condition based on the history, clinical signs and examination
- Demonstrating the appropriate use of equipment routinely used in general practice and a familiarity with the breadth of tests offered in secondary care
- Emphasizing where appropriate the self-limiting or relatively benign natural history of a problem and the importance of patients developing personal coping strategies
- Managing uncertainty, unpredictability and paradox by displaying an ability to evaluate undifferentiated and complex problems
- Managing conflict eg, those which may arise when making decisions about the use of resources, when the needs or expectations of an individual patient and needs of a population of patients cannot both be fully met
- Demonstrating awareness of individual and family psycho-dynamics and their interaction with health & illness
- Balancing conflicting interests when having a dual responsibility, and an obligation to patients
- Showing a flexibility of approach according to the different needs of a wide variety of patients irrespective of their age, gender, cultural, religious or ethnic background, sexual orientation or any other special needs
- Practicing medicine which is wherever possible evidence based, with individuals and populations
- Balancing clinical judgment against evidence-based practice as determined by individual patient needs
- Coordinating and integrating care by flexibly adopting the various roles of a GP in the course of ordinary practice
- Recognizing GP’s frontline role both by aiding patients access to specialized care & protection from unnecessary interventions
- Managing time and workload effectively, and setting realistic goals
- Maintaining comprehensive written and computerized records
- Being able to recognize and meet the doctor’s needs as a person including self & family care (See Appendix 1)
- Recognizing and working within the limits of one’s professional competence
- Being able to work effectively in a team, either as a member or leader, accepting the principles of collective responsibility, and to consult colleagues when appropriate

Doctor-patient relations, communication & consulting skills

- Respecting patients as competent and equal partners with different areas of expertise
- Sharing decision-making with patients, enabling them to make informed choices
- Respecting patients’ perception of the experience of their illness (health beliefs); their social circumstances, habits, behavior, attitude to risk, values and preferences
- Understanding the role of patients’ ideas, values, concerns & expectations in the understanding of their problems
- Incorporating patients’ expectations, preferences & choices in formulating an appropriate management plan
- Showing interest in patients by being attentive to their problems, treating them politely and demonstrating active listening skills
- Demonstrating communication & consultation skills and familiarity with well-recognized consultation techniques
- Establishing effective rapport with the patient
- Responding to patients’ verbal and non-verbal cues to any underlying concerns
- Being able to detect, elicit and respond to patients’ emotional issues
- Being able to deal with patients’ difficult emotions, e.g. denial, anger, fear
- Making links between emotional and physical symptoms, or between physical, psychological and social issues
- Communicating and articulating with patients effectively, clearly, fluently and framing content at an appropriate level, wherever the consultation takes place, including by telephone or in writing
- Involving patients’ significant others such as their next of kin or caregiver, when appropriate, in a consultation
- Sensitively minimizing possibly embarrassing physical or psychological exposure, respecting patient dignity, privacy & modesty
- Explaining to patient, the purpose and nature of an examination and offering a chaperone when appropriate
- Where appropriate, facilitating changes in patients’ behavior
- Understanding family or group dynamics sufficient to allow effective intervention in patients’ family contexts
- Demonstrating an awareness of the doctor as a therapeutic agent, the impact of transference and counter-transference, the danger of dependency, and displaying an insight into the psychological processes affecting the patient, the doctor and the relationship between them
- Understanding the factors, such as longer consultations, associated with a range of better patient outcomes

Professional, ethical and legal obligations

- Demonstrating appropriate professional values and attitudes, including caritas; trustworthiness; accountability; respect for the dignity, privacy and rights of patients; concern for their relatives; and providing equity of care
- Adhering to contemporary ethical principles
- Observing and keeping up to date with the laws and statutory codes affecting medical practice.
- Respecting the principle of confidentiality; & if breaching it without the patient’s consent, being prepared to justify the decision
- Demonstrating a commitment to maintaining professional integrity, standards and responsibility
- Ensuring that whenever possible the patient has understood what treatment or investigation is proposed and what may result, and has given informed consent before it is carried out
- Applying guidelines for treatment of patients under 16 yrs of age with/without the consent of those with parental responsibility
- Demonstrating an awareness of issues relating to clinical responsibility, e.g. with regard to drug treatment or patients attending complementary practitioners
- Acknowledging the ‘good Samaritan’ principle, i.e. offering to anyone at risk treatment that could reasonably be expected
- Making appropriate use of available sources of advice on legal & ethical issues at individual, professional, local/ national levels
- Follow guidance on doctors obligation to protect patients from a colleague’s poor performance/health/conduct
- Respecting a patient’s right to a second opinion
- Adopting safe practice and methods in the working environment relating to biological, chemical, physical or psychological hazards, which conform to health and safety legislation

**Population, preventive and societal issues**

- Demonstrating an awareness of the doctor’s role in society as an advocate of good health
- Understanding the concept of public interest
- Displaying ability to make decisions or interventions in the interests of a community or population of patients
- Understanding current ideas concerning the relative rights and responsibilities of Govt, the medical profession and the public
- Understanding the concepts of health and normality, the characteristics of healthy people, the qualitative measurement of health, and models of health and disease
- Knowing the conditions which constitute the main reasons for patients consulting in primary care, namely respiratory, eye, ear, nose and throat, musculo-skeletal, psycho-social, dermatology, cardio-vascular and gastro-intestinal problems
- Demonstrating an understanding of demographic and epidemiological issues and the health needs of special groups, and the way in which these factors modify people’s use of the health care services
- Recognizing the impact of adverse environmental factors on health, including poverty, unemployment, poor housing, malnutrition, occupational hazards and pollution
- Possessing working knowledge of population-based preventive strategies including immunization, health/population screening.
- Understanding the acceptable criteria for screening for disease & applying concepts of primary, secondary & tertiary prevention
- Having a working knowledge of screening and recall systems
- Recognizing and using opportunities for individual disease prevention and promoting the positive aspects of a healthy lifestyle

**Information management and technology**

- Keeping clear, accurate, legible and contemporaneous patient records, which report the relevant clinical findings, the decisions made, the information given to patients (including by telephone), details of any drugs or other treatment prescribed (including repeat prescriptions), and advice about follow-up arrangements
- Employing written communication skills to make referrals, write reports and issue certification
- Ensuring colleagues are well informed when sharing care of patients especially to ensure adequate follow up
- Providing all relevant information about patient’s history & current condition when referring to a colleague
- Ensuring that patients are informed about the facts shared within teams & between those providing their care
- Assisting patients who choose to exercise their right to review their clinical records
- Having knowledge of, and means to access, printed & electronic sources of medical data, information & advice
- Applying population-based screening and recall systems
- Making informed choices about the relative roles of paper-held and electronic data in practice
- Appropriate utilization of available information technology to facilitate clinical practice, audit and chronic disease surveillance
- Using appropriate computer links with external agencies like hospitals, medical departments/ authorities & Primary Care regions
- Maintaining an awareness of advances in health informatics, telemetric medicine and computing technology, and their application in improving the delivery of health care

**Risk management**

- Practicing in such a way as to minimize the risk to patients of harm or error
- Fully informing patients about their diagnosis, treatment and prognosis
- Explaining why a treatment is being prescribed / a management plan proposed & the anticipated benefits & potential side-effects
- Discussing the advantages and disadvantages of alternative courses of action
- Effectively communicating risk by exchanging information, preferences, beliefs and opinions with patients about those risks
- Providing clear explanations of the nature of clinical evidence and its interpretation
- Ensuring appropriate follow up arrangements and ‘safety-netting’
- Improving patient safety by critical event reporting, clinical audit, analysis of patient complaints or information from colleagues
- Responding to criticisms or complaints promptly & constructively and demonstrating an ability to learn from it
- Being aware of the obligations for notifying outside agencies, for example, regarding safety of medicines and devices to the concerned authority, and notifiable diseases
Monitoring of quality of performance, audit & clinical governance

- Demonstrating a commitment to professional audit and peer review
- Using feedback from patients to identify their needs and using them to bring about improvement in service
- Participating in, and responding constructively to, appraisals and assessments of professional competence.
- Demonstrating commitment to the principles of clinical governance, which is ‘designed to enshrine high standards of practice, quality assurance and service improvement’
- Using information technology where appropriate as a tool for audit and quality control
- Understanding and applying the principles and terms used in inferential statistics and evidence-based medicine
- Applying critical appraisal skills, statistical interpretation and the audit cycle to evaluate and improve care
- Demonstrating an awareness of local and national systems for monitoring standards of care

Continuing Professional Development (CPD), learning, teaching and training

- Demonstrating a commitment to lifelong learner-centered higher professional education (HPE) and CPD
- Demonstrating a commitment to keeping up to date with evolving knowledge, news and thinking
- Fostering skills of self-awareness and self-appraisal required to identify individual strengths and weaknesses
- Participating willingly and with candor in regular mentoring or appraisal
- Offering non-judgmental feedback and advice to colleagues as part of their professional development
- Using self-assessment and formal appraisal as a prelude to acquiring explicit competencies and skills
- Possessing the skills and commitment to formulate practice development programs
- Undertaking teaching in its widest sense, including the education of patients, doctors in training and colleagues
- Ensuring that patients have genuine choice over whether or not to participate in the education of students or doctors in training, and that their care is not thereby jeopardized
- Understanding the interdependence of clinical practice, organization, research, education and professional development

Working with colleagues

- Treating colleagues fairly, and not discriminating them on grounds of gender, race, disability, beliefs or lifestyle
- Ensuring that patients are not encouraged to doubt any colleague’s expertise by making unsuitable comments about them
- Recognizing and respecting the roles of other members of the extended primary care team and colleagues in the secondary, social and voluntary sectors and working with them to deliver a high quality of care
- Demonstrating awareness of the contribution of complementary practitioners and the nature of therapies that patients may need
- Demonstrating a commitment to team collaboration and working in a multi-professional environment
- Having an understanding of team dynamics, leadership & where individual responsibility lies for clinical and managerial issues
- Developing strategies for communicating effectively internally within the PHC team and externally with other organizations
- Demonstrating a commitment to staff development, education, appraisal & training and being able to conduct needs assessment
- Possessing an awareness of potential employer/employee issues
- Working with colleagues in Primary Care Organizations, for example, to develop guidelines and protocols
- Having knowledge of the role of ancillary sources of primary health care, e.g. social workers.
- Cooperating with any formal enquiry into the treatment of a patient, not withholding any relevant information, and assisting the coroner or procurator fiscal if an inquest or inquiry is held into a patient’s death

Organizational, administrative and regulatory framework

- Understanding the duties and responsibilities of being a doctor working with the DHA
- Comprehend the importance for doctors & patients to possess adequate insurance/professional indemnity cover
- Understanding the regulatory and contractual frameworks under which doctors practice
- Understanding and applying the main areas of legislation covering human rights, equal opportunities, data protection, access to medical reports, consumer protection, health and safety, abortion, births, deaths, controlled drugs, driving motor vehicles
- Being aware of standards & guidelines for health care & performance review, including those defined and promulgated by DHA
- Possessing awareness of workload issues relating to general and personal medical services including activities such as clinics, telephone consultations, home visiting, teaching, outside commitments and, including data on consultation & referral rates
- Awareness of the range of career opportunities available for GPs, including research, education and assessment

Practice management

- Demonstrating planning skills (strategic and operational) at level of health center and higher
- Understanding characteristics of leadership and management in general practice at deferent levels
- Understanding the business and managerial aspects of practice, such as sources of income and expenditure, use of premises, marketing, and the interpretation of accounts
- Demonstrating truthfulness and honesty when completing certificates and other documents
- Ensuring that any research undertaken in practice is done to the highest standards, as approved by a research ethical committee, so that the care and safety of patients is paramount.
- Providing accurate, objective, honest and unbiased comments in references and including relevant important information, which might have a bearing on a colleague’s competence, performance, reliability or conduct
Theoretical Knowledge

Within the general context of primary care, the following areas should be considered for each problem or disease

- Typical and atypical presentations
- Risk factors
- Diagnostic features & Prognosis
- Recognition of ‘alarm’ or ‘red flag’ features
- Treatment incl. initial, emergency & continuing care
- Natural history of untreated condition incl. acute/chronic
- An accurate idea of the prevalence and incidence across the ages and any changes over time

The problems and diseases listed below are tabulated in groups of conditions seen in general practice.

<table>
<thead>
<tr>
<th>Seriously ill patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular problems including cardiac arrest, acute coronary syndrome, acute myocardial infarct, acute left ventricular failure, dissecting aneurysms, severe hypertension and life-threatening arrhythmias</td>
</tr>
<tr>
<td>Respiratory problems including acute severe asthma, pulmonary embolus, pneumothorax, pneumonia, epiglottitis, bronchiolitis and respiratory failure</td>
</tr>
<tr>
<td>Central nervous system problems including cerebrovascular problems such as strokes, seizures including febrile convulsions, infections such as meningitis or encephalitis, and signs of other significant intracranial pathology such as tumors</td>
</tr>
<tr>
<td>Gastrointestinal problems including gastroenteritis especially in childhood, hemorrhages, acute abdominal pain and liver failure</td>
</tr>
<tr>
<td>Infectious diseases not covered elsewhere e.g. malaria</td>
</tr>
<tr>
<td>Shocked patients including septicemia, carcinogenic and anaphylactic shock, and hemorrhage</td>
</tr>
<tr>
<td>Unconscious patients including those with diabetic problems such as hypoglycemia, hyperglycemic ketoacidosis and hyperosmolar non-ketotic coma</td>
</tr>
<tr>
<td>Psychiatric problems including acute psychoses, acute organic reactions, the suicidal patient, psychological crisis</td>
</tr>
<tr>
<td>Urological issues including torsion of the testis, priapism, paraphimosis, gross hematuria, ureteric colic &amp; acute urine retention</td>
</tr>
<tr>
<td>Women’s problems including severe vaginal bleeding and/or pelvic pain e.g. ectopic pregnancy and emergencies associated with pregnancy e.g. placental abruption or eclampsia</td>
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<tr>
<td>Abnormal and abnormal conditions</td>
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<table>
<thead>
<tr>
<th>Complex and undifferentiated conditions</th>
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</thead>
<tbody>
<tr>
<td>This includes symptoms and ill-defined conditions for which no diagnosis classifiable elsewhere is recorded.</td>
</tr>
<tr>
<td>Tiredness all the time/ malaise/ fatigue/ weakness/ lassitude</td>
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<tr>
<td>‘Funny turns’/ dizziness/ faints / blackouts/ ataxia /'goneoff legs’</td>
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<tr>
<td>Anaemia and/or weight loss</td>
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<tr>
<td>Weight gain/ obesity &amp; conditions associated with obesity</td>
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<tr>
<td>‘Swelling’: localized, mass, lump including single lymph nodes</td>
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<tr>
<td>Fever including pyrexia of unknown origin &amp; burning up</td>
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<tr>
<td>Allergic problems – Non-specific rashes</td>
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<tr>
<td>Pallor including patients who may be anemic for any cause</td>
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<tr>
<td>Confusion, memory loss, poor concentration and forgetfulness</td>
</tr>
<tr>
<td>Frequency of micturition, including metabolic causes</td>
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<table>
<thead>
<tr>
<th>Trauma/Injuries/Toxic effects</th>
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</thead>
<tbody>
<tr>
<td>- Abuse: sexual adult, child; non-accidental child, elder</td>
</tr>
<tr>
<td>- Wounds (including surgical) and lacerations: management and principles of care</td>
</tr>
<tr>
<td>- Fractures, sprains, strains and other significant soft-tissue trauma: recognition and principles of management</td>
</tr>
<tr>
<td>- Head injuries including minor, with/ without loss of consciousness, concussion and more serious cranial or intracranial injuries</td>
</tr>
<tr>
<td>- Internal injuries of the chest, abdomen or pelvis: recognition and principles of management</td>
</tr>
<tr>
<td>- Poisoning including by drugs (prescribed, over the counter or non-medicinal), foods, and other chemicals whether deliberately or unintentionally and including adverse effects of prescribed drugs</td>
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<tr>
<td>- Postoperative complications including those related to the procedure, infections &amp; other systems e.g. respiratory or circulatory</td>
</tr>
<tr>
<td>- Miscellaneous including epistaxis, foreign bodies, burns</td>
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<thead>
<tr>
<th>Respiratory tract diseases</th>
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</thead>
<tbody>
<tr>
<td>Sore throats and colds, upper respiratory tract infections including nasopharyngitis, pharyngitis, tonsillitis, peri-tonsillar abscess, epiglottitis, laryngitis and tracheitis</td>
</tr>
<tr>
<td>Shortness of breath including lower respiratory tract infections, e.g. bronchiolitis, bronchitis and pneumonia (of any cause), bronchiectasis, emphysema, pneumothorax and pulmonary embolus</td>
</tr>
<tr>
<td>Wheezing including asthma, chronic obstructive pulmonary disease</td>
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<tr>
<td>Cough including hemoptysis – Stridor - Hoarseness, change in character of voice</td>
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</tbody>
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<tr>
<th>Ear, nose and throat problems</th>
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<tbody>
<tr>
<td>Nasal problems including catarrh, hay fever, ‘rhinitis’, polyps, epistaxis</td>
</tr>
<tr>
<td>Otalgia including otitis externa and media</td>
</tr>
<tr>
<td>Mouth problems including pain such as ulceration, infections such as gingivitis, malignancies, disorders of the salivary glands, and medical problems associated with the dentition</td>
</tr>
<tr>
<td>Sinus problems - Hearing problems including deafness, tinnitus and associated speech or language disorders</td>
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<thead>
<tr>
<th>Eye problems</th>
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<tbody>
<tr>
<td>Red eye including conjunctivitis of various causes, iritis, episcleritis, corneal or dendritic ulcers</td>
</tr>
<tr>
<td>Loss of vision including visual impairment like cataracts/ retinal problems such as detachment, vascular lesions, atrophy, tumors</td>
</tr>
<tr>
<td>Eye pain such as glaucoma or retrobulbar neuritis - Eyelid problems such as blepharitis, ectropion and disorders of tears</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Dermatological problems</th>
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</thead>
<tbody>
<tr>
<td>Pruritus either generalized or localized</td>
</tr>
<tr>
<td>Rashes including dermatoses, eczema, acne and those associated with internal disease</td>
</tr>
<tr>
<td>Skin tumors including benign lesions such as naevis and various moles and malignant lesions such as malignant melanoma, squamous cell carcinoma, basal cell carcinoma</td>
</tr>
<tr>
<td>Nail and/or hair disorders including alopecia</td>
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<tr>
<td>Gastrointestinal problems</td>
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<tr>
<td>Musculo-skeletal problems</td>
</tr>
<tr>
<td>- Change in bowel habit - Constipation</td>
</tr>
<tr>
<td>- Gastrointestinal hemorrhage</td>
</tr>
<tr>
<td>Neurological problems</td>
</tr>
<tr>
<td>- Vertigo incl. vertebro-basilar, labyrinthine/cerebellar issues</td>
</tr>
<tr>
<td>- Seizures - Strokes and transient ischemic attacks</td>
</tr>
<tr>
<td>Cardiovascular problems</td>
</tr>
<tr>
<td>- Chest pain including ischemic heart disease and pericarditis</td>
</tr>
<tr>
<td>- Cardiac failure including left ventricular dysfunction</td>
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<tr>
<td>- Palpitations incl. conduction defects like atrial fibrillation</td>
</tr>
<tr>
<td>Psychiatric disorders</td>
</tr>
<tr>
<td>- Behavior problems such as attention deficit hyper-activity disorder, encopresis, school problems</td>
</tr>
<tr>
<td>- Problems of particular life stages (childhood, old age etc)</td>
</tr>
<tr>
<td>- Family, social &amp; cultural context of psychiatric illness</td>
</tr>
<tr>
<td>- Depression, including features of a major illness such as biological symptoms, assessment of suicidal risk, detection of masked depression</td>
</tr>
<tr>
<td>- Anxiety including generalized anxiety disorder, situational anxiety and adjustment reactions</td>
</tr>
<tr>
<td>Children's problems</td>
</tr>
<tr>
<td>- Neonatal problems including jaundice, feeding issues</td>
</tr>
<tr>
<td>- Childhood infections including exanthemata</td>
</tr>
<tr>
<td>- Common diseases of childhood</td>
</tr>
<tr>
<td>Urogenital problems</td>
</tr>
<tr>
<td>Sexual health</td>
</tr>
<tr>
<td>- Contraception male and female</td>
</tr>
<tr>
<td>- Infertility, primary or secondary</td>
</tr>
<tr>
<td>Men's health</td>
</tr>
<tr>
<td>Testicular problems incl. pain eg. orchitis &amp; swelling eg. tumors - Urinary problems incl. benign prostatic hypertrophy/ malignancy</td>
</tr>
<tr>
<td>Women's health</td>
</tr>
<tr>
<td>- Hormonal issues incl. menopause/premenstrual syndrome</td>
</tr>
<tr>
<td>- Pelvic mass including cysts, fibroids and malignancy</td>
</tr>
<tr>
<td>- Pelvic pain including pelvic inflammatory disease</td>
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<tr>
<td>- Menstrual problems incl. pain &amp; bleeding</td>
</tr>
<tr>
<td>- Urinary problems including and/or urge incontinence</td>
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<tr>
<td>Miscellaneous problems</td>
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<tr>
<td>- Endocrine &amp; Genetic disorders</td>
</tr>
<tr>
<td>- Lymphatic disorders including functional asplenia</td>
</tr>
<tr>
<td>- Aspects &amp; treatment of infections contracted abroad</td>
</tr>
<tr>
<td>Serious communicable diseases</td>
</tr>
<tr>
<td>- Means and control of transmission, awareness of diagnosis, investigation, management, consent for testing, issues of confidentiality and the implications to the patient of a positive result</td>
</tr>
<tr>
<td>- Role of Public Health Services</td>
</tr>
<tr>
<td>Pharmaco-therapeutics</td>
</tr>
<tr>
<td>- Awareness of drug contraindications, adverse effects, iatrogenic disorders and potential interactions</td>
</tr>
</tbody>
</table>
Practical Skills

Ability to perform general clinical examination of organ systems, including digital rectal & vaginal examinations

Proficient use of the following:
- Auriscope
- Ophthalmoscope
- Sphygmomanometer
- Stethoscope
- Fetal stethoscope and/or ‘Sonic aid’
- Patella hammer
- Thermometer
- Tuning fork
- Visual acuity and color tests
- Proctoscope
- Vaginal speculum

Proficiency in the following:
- Cardio-pulmonary resuscitation incl. use of a defibrillator
- Controlling a hemorrhage
- Venipuncture
- Giving intravenous, intramuscular, subcutaneous or intradermal injections including via a syringe driver
- Performing and interpreting an electrocardiogram
- Performing basic respiratory function tests
- Administering oxygen safely
- Use of a nebulizer
- Near patient testing e.g. urinalysis
- Removal of ear wax
- Passing a urinary catheter
- Performing a cervical smear
- Collecting other relevant samples including endocervical or per-nasal swabs
- Suturing a wound
- Minor surgical procedures e.g. cryotherapy, joint injection and aspiration, and surgical excisions as appropriate for approved practitioners, and including referral of relevant samples for histology
Residents are required to present a research through final year thesis and for this purpose, workshops are held as follows:

- Research methodology (3 days)
- Literature review & Refworks (1 day)
- SPSS (Basic Statistics)

The goal of these workshops is to understand and able to apply the following:

- Using electronic databases such as Medline & Internet to conduct literature searches and to locate information
- Critically appraise/evaluate relevant literature, reviews and new techniques/technologies
- Use word processors, databases, spreadsheets and statistical packages to produce statistical analysis & research papers
- Conduct a literature review
- Develop an hypothesis to be tested
- Choose an appropriate research methodology and design a research study
- Write a grant application to fund a research project.
- Apply for ethics committee approval for a clinical or laboratory based study
- Collect, collate and interpret data
- Apply basic statistical analysis to clinical data
- Develop an outline structure for a research paper
- Write a literature review for a research paper
- Searching the literature and data-bases purposefully
- Interpreting findings and consider their applications to other contexts
- Know how to select and draw on clinical evidence to inform practice
- Be able to define the following terms
  - Clinical significance
  - Statistically significant / insignificant
  - Variability
  - Biological variability
  - Laboratory variability
  - Observer variability
  - Data types: categorical, continuous, qualitative, quantitative, discrete

- Understand the following methods of and terms associated with data collection:
  - Epidemiological studies
  - Randomized controlled & crossover clinical trials
  - Randomized controlled laboratory study
  - Observational studies
  - Discrete and continuous variables
  - Sample size determination

- Recognize and understand the following concepts of problems associated with data:
  - Bias: confounding - measurement - sampling
  - Randomization
  - Stratification
  - Blindness (masking)
  - Relevance of sample size to the ultimate
  - Outcome of the statistical analysis
  - Understand the significance & limitations of measures of central tendency:
    - Mean, median, mode
    - Variance
    - Co-variance
    - Standard deviation
    - Confidence interval
  - Meta-analysis
  - Absolute risk
    - Absolute risk difference
    - Absolute risk reduction
    - Attributable risk
    - Etiologic fraction
    - Relative Risk

- Getting Research skills:
  - Choosing a topic for research
  - Having a detailed literature review for this purpose
  - Designing a research as per standard methodology
  - Choosing a mentor on the related field
  - Finalize the research proposal and get both scientific and ethical approval
  - The research proposal will consist of at least of Title page, Specific Aims
  - Introduction/Background and Significance
  - Objectives and Hypothesis
  - Research Design and Methodology
  - References / Bibliography
  - Conduct the research through data gathering, survey, or any standard tool
  - Analyze the data
  - Present the data on a thesis as per DRTP thesis guidelines.
Each thesis must be arranged in the following order:
- Title Page (Sample A). Do not place a page number on this page.
- Dedication. Do not place a page number on this page.
- Acknowledgements and/or Preface. Do not place a page number on this page.
- Abstract (Sample B). Do not place a page number on this page.
- Table of Contents. Do not place a page number on this page.
- List of Tables, Figures, Illustrations/Maps/Slides, List of Supplemental Files such as multimedia files.
- List of abbreviations
- Text of the Thesis. All pages from the first page of text through the bibliography or Vita, if included, are numbered consecutively in Arabic numerals, beginning with Arabic numeral “1” on the first page of the thesis text.
- Introduction
- Material and Methods
- Results
- Discussion
- Limitations
- Conclusion
- Appendix or Appendices. Continue text numbering with Arabic numerals.
- References. Vancouver or Harvard standard style.
- Publications (please insert the full text of your published paper if you have any)
- Curriculum Vita. Continue text numbering with Arabic numerals.

Thesis Formatting and Layout Requirements:

<table>
<thead>
<tr>
<th>Page Size</th>
<th>Page size should be standard A4 size (8.50 x 11.00).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Margins</td>
<td>1 inch on all sides, including page numbers.</td>
</tr>
<tr>
<td>Page Nos.</td>
<td>Should be at least 1&quot; from the below margins edges of the page, as appears in this document.</td>
</tr>
<tr>
<td>Spacing</td>
<td>Preliminary pages and text must be double-spaced or 1.5-spaced. Under certain conditions, quotations may be single spaced. Table of Contents and lists with lengthy entries may be single spaced with a double space between entries. References may be single spaced, with a double space between entries.</td>
</tr>
<tr>
<td>Page Alignment</td>
<td>Each new chapter/major section (i.e. Chapter 1 - 2, Appendix, Bibliography, Vita) must begin on a new page.</td>
</tr>
<tr>
<td>Pagination</td>
<td>All text page in the thesis is numbered. All text page numbers in the thesis must be centered under the text in the same location on each page and located at least one inch from the bottom of the page.</td>
</tr>
<tr>
<td>Word Processing</td>
<td>Your final thesis must be correct in spelling and punctuation and presented in a consistent, structured format. A single, legible font must be used throughout the thesis, the only exceptions being in tables, figures, graphs, appendices, foot notes, and supplemental files. The font size should be 12-pt. Accuracy and consistency is required in format of the thesis.</td>
</tr>
<tr>
<td>Tables &amp; Illustrations</td>
<td>Pages carrying illustrative material must be given page numbers appropriate to their place in the document. Illustrative material may not be inserted after the document has been numbered and given numbers such as “10a.” All tables, figures, illustrations, and other types of examples included and referenced in the text of the thesis should be numbered for identification. There should be no duplication of these numbers; i.e., no two tables should be assigned the same number. Figures may be numbered in one of two ways: consecutively throughout the document (Table 1, Table 2, Table 3, etc.), or double-numbered so that illustrations’ numbers reflect their locations in the document (Fig. 9.3 is the third figure in Chapter 9, or Fig. A2 is the second figure in Appendix A.)</td>
</tr>
<tr>
<td>Captions &amp; legends</td>
<td>To be placed on the same page with the figure, graph, table or illustration they describe. In order to fit both figure and caption on the same page, captions may be single-spaced, margins may be decreased to one inch, and figures may be reduced in size to fit. If the figures are reduced from their original size, then the page number must be added after the reduction so as not to alter its size. If there is no other way to manage the amount of material to be shown, the caption and figures should be side-by-side in continuous view. This method should only be used in the rare instance where all of the pertinent material will not fit on the same page. Figures, captions, and page numbers must be easily readable when the electronic document is viewed at 100 percent.</td>
</tr>
<tr>
<td>Copies Required</td>
<td>Residents upload a single pdf file of their thesis to Research website (e.g. thesis submission site). The electronic pdf file serves as the DHA archival copy of the thesis. As an extra measure of security, students are strongly encouraged to keep a copy of their approved thesis and to provide an additional copy to their thesis supervisor or department/program library, if applicable. By keeping an electronic backup on hand, students can easily provide scholars with a copy of the thesis during the time between submission and publication, if necessary. A paper copy of the thesis is required by the AAC.</td>
</tr>
<tr>
<td>Footnote Citations, References &amp; Bibliography</td>
<td>Each thesis must include a reference, or bibliography section. This section may be called “Bibliography” or “References”. The bibliography is the last required section of the thesis and the last section heading listed on the Table of Contents unless an optional Vita page is included. When a Vita page is included, the bibliography immediately precedes the Vita at the end of the thesis. The bibliography must indicate materials actually used, such as articles, chapters of books, websites, etc.</td>
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Specific Yearly Training Objectives

Proficiency in the following interviewing and communication (consultation) skills:
- How to be efficient, concise and gentle in the care of his/her patients and their families.
- Establishing rapport with patients and their families, and be able to handle the psychological impact of the problem on both.
- Use of hypothetico-deductive method in his or her diagnostic process.
- Establishing the diagnosis taking into account the physical, psychological & social components of the problem.
- Expression of warmth by:
  - Voice
  - Contact
  - Encouragement
  - Body position
  - Repetition of key phrases
  - Listening and patience
- Expression of respect by:
  - Assurance of confidentiality
  - Non-judgmental approach
  - Use of facts & open ended questions
  - Concern for patient’s feelings of comfort
  - Expression of empathy by providing appropriate support & praise
- Exploration of psycho-social symptoms
  - Avoiding careless comments - Demonstrating self confidence
  - Performance of appropriate/ relevant physical exam taking into account patient’s comfort & agreement.
- The termination of the consultation should consist of:
  - Clear instructions regarding treatment plan and follow up visits - Openness to questions for any item that may arise.
  - Recheck of patient’s understanding and acceptance of diagnosis and treatment plan.
  - When appropriate, making a contract with the patient regarding treatment plan & general health care.

Ensuring presence of the followings in patients’ medical record:
- Documentation of patient’s basic data, listing patients past medical problems and long term medications.
- Proper use of SOAP system.
- Documenting and updating "Active medical problem list".
- Use of personal stamp and signature.
- Designing Family Genogram when appropriate.

Diagnosis, investigation & treatment of patients presenting with the following problems encountered:

Adults presenting with the following problems:
- Cold and Cough
- Sputum and Hemoptyisis
- Difficulty in breathing & wheezing
- Chest pain
- High blood pressure
- Palpitations
- Heart burn/ epigastric pain
- Nausea and vomiting
- Diarrhea/ Constipation
- Jaundice
- Proteinuria/ Dysuria
- Frequency and/or urgency
- Back pain
- Headache
- Polydipsia, polyurea & Diabetes
- Anemia
- Fever
- Eye discharge / Red Eye

Children and adolescents presenting with the following:
- Neonatal jaundice
- Abdominal mass
- Poor appetite
- Pallor and Anemia
- Abdominal pain
- Vomiting
- Loose motion
- Constipation
- Pediculosis
- Hematuria
- Fever
- Cough and wheezing
- Urinary tract infection
- Failure to thrive
- Earache
- Dyspnea
- Heart murmur
- Febrile convulsions
- Exanthematous rashes
- Obesity
- Sore throat
- Polyurea and polydipsia
- Lower extremity pain
- Limbing
- Acne
- Enuresis
- Short stature
- Meningitis
- Tuberculosis
- Cyanosis
- Parasitic infestation
- Infantile colic
- Common skin infections & impetigo

Women presenting with the following problems:
- Dysmenorhhea
- Vaginal discharge
- Abnormal vaginal bleeding
- Dyspareunia
- Amenorrhoea

Mastering the skills for minor clinical and surgical procedures like

Minor surgical procedures like suturing of simple wounds, incision and drainage of abscesses & management of simple burns.

Clinical procedures
- I.V. line insertion
- Local anesthesia infiltration
- Vaginal exam & pap smear
- Performing & interpreting ECG
- PR exam & proctoscopy
- KOH & wet mount preparation
- Testing visual acuity, color vision and visual fields

Professional attitude to all medical, social and psychological problems presented, including:
- Assessing patient’s perception of the problem and responding to his needs.
- Exploring behavioral and ecological aspect of the problem and its impact on the family.
- Determining how and why the condition has occurred.
- Explaining the nature of the problem to the patient as a routine practice and to the other family members.
- Keeping the family members informed of patient’s health status during an emergency.
- Involving the patient and his family in managing clinical and chronic problems.
- Stressing the behavioral and life style modifications for the preventable conditions.
- Recognizing family anxiety and making every effort to alleviate their suffering.
- Providing personal, comprehensive, and continuous care to the patients and their families.

The ability to properly select and design a protocol for the community research project.
**Specific objectives for the 2nd residency year**

**Ability to design a protocol for a community research project, collect relevant data and analyze the final results.**

**Ability to diagnose, investigate and treat patients presenting with the following problems encountered:**

**Adults presenting with the following problems:**
- Dizziness and Vertigo
- Heart murmur
- Irregular rhythm
- Abdominal distention
- Renal and ureteric colic
- Neck pain
- Knee pain
- Shoulder pain
- Hip pain
- Foot pain
- Mono and polyarthritis

**Women presenting with the following problems:**
- Contraception
- Incontinence

**Children and adolescents presenting with the following:**
- Headache
- In-toing and out-toing
- Epilepsy
- Bowleg
- Proteinuria

**Proiciency in mastering the skills for the following clinical and surgical procedures:**
- Electrocautery
- Ear syringing
- Ear wick insertion
- CPR & endotracheal intubation

**Specific objectives for the 3rd residency year**

**Ability to diagnose, investigate and treat adult patients presenting with the following clinical problems:**
- Syncope
- Leg edema
- Dysphagia
- Hematamesis
- Malena
- Scrotal pain, swelling, and mass
- Urinary retention
- Tumors
- Dementia
- Coma
- Parises and paralysis
- Hirsutism
- Narcotic prescription
- Leukopenia / Esinophilia

**Ability to diagnose, investigate and treat adult female patients presenting with the following clinical problems:**
- Unwanted pregnancy
- Breast problem

**Ability to diagnose, investigate and treat children & adolescents presenting with the following clinical problems:**
- Micro & macrocephaly
- Enlarged lymph nodes

**Ability to evaluate, diagnose and initiate primary treatment to the patients with the following life threatening and emergency conditions, before referring them to the Accident and Emergency department:**
- Acute myocardial infarction
- Pulmonary edema
- Acute respiratory failure
- Hypertensive crisis
- G.I. bleeding

**Ability to perform the following life threatening and surgical skills:**
- Excision of skin and the subcutaneous lesions e.g. Sebaceous cyst, lipoma, skin tag
- IUCD. insertion
- Cardioversion
- Tracheostomy

**Awareness of the counseling techniques, preventive care and health promotion. This will include the followings:**
- Counseling for the loss of autonomy, self-image and employment.
- Pre-marital & marital counseling.

Competency in designing the protocol for the community research project, collecting relevant data, analyzing the results and properly writing the research paper. The ability to conduct health education sessions pertinent to the community needs, to the school children and in the social clubs.
## Rotation Objectives

### Department of Accident & Emergency

**Duration:** 2 months

**Proficiency in diagnosing and managing the following life threatening conditions:**

- Acute M.I.
- Left ventricular failure
- Arrhythmias
- Acute bronchial asthma
- Status asthmaticus
- Hypoglycemia
- Diabetic Ketoacidosis
- Unconscious patient
- Sickling crisis

**Competency in managing the following surgical problems:**

- Severely injured patient
- Head injury
- Fractures
- Acute abdomen
- Appendicitis
- Perforated D.U.
- Peritonitis
- Cholecystitis
- Pancreatitis
- Renal colics
- Intestinal obstruction
- Pelvic inflammation
- Tendon, nerve & muscle cuts
- 2nd & 3rd degree burns

**Ability to diagnose and manage the following pediatric problems presenting to A & E Department**

- Croup
- Febrile convulsions
- Acute respiratory distress
- S.C. crisis
- Dehydration

**The skills in performing the following procedures:**

- IV cannulation & blood collection
- Suturing uncomplicated skin cuts
- Stitch removal
- X-ray reading & interpretation
- Drainage of abscesses
- Catheterization
- POP application & managing its complications

### Department of Medicine

**Duration:** 6 months

**Competency to diagnose, investigate and treat the following presenting problems related to:**

**Cardiology**
- Chest pain, Syncope, Palpitation, Leg edema, Dyspnea

**Respiratory System**
- Dyspnea, Wheezing, Cough, Hemoptysis

**Gastroenterology**
- Dyspepsia, Dysphagia, Abdominal pain, Hematemesis, Malena, Nausea & vomiting, Diarrhea, Constipation, Abdominal distension, Jaundice

**Nephrology**
- Dypsia, Frequency, Hematuria, Proteinuria, Oliguria, Anuria

**Neurology**
- Headache, Pain, numbness, Paresis & Paralysis, Seizures, Tumors, Memory disorders, Coma, Dizziness

**Endocrinology**
- Thyroid swelling, Hirsutism, Polyuria/Polydypsia, Hypoglycemia

**Hematology**
- Pallor, Plethora, Lymphadenopathy

**Rheumatology**
- Neck pain, Back pain, Monoarticular pain, Polyarticular pain

**Non-classified**
- Weakness, Fatigue, Weight loss, Prolonged fever

**Fundamental knowledge of the following chronic conditions related to:**

**Cardiology**
- Congenital heart disease, Ischaemic heart disease, Conductive disorders & arrhythmias, Valvular heart diseases, Hypertension, Rheumatic Fever, Heart failure, Thrombo embolic disorders, Carditis, Cardiomyopathy

**Respiratory system**
- COPD, Asthma, Tuberculosis, Pneumonias, Lung cancer, Pulmonary embolism, Bronchiectasis

**Gastroenterology**
- Acid peptic disease, inflammatory bowel disease, Irritable bowel syndrome, Diverticulosis, Malabsorption, Hepato biliary diseases, Pancreatitis

**Nephrology**
- Pyelonephritis, Glomerulonephritis, Nephrotic syndrome, Uraemia, Renal failure

**Neurology**
- Cerebro vascular accidents & TIA, Seizure disorders, Neuropathies, Parkinsonism, CNS, Infections (meningitis/encephalitis/ measles/ meningitis), Dementia, Space Occupying lesions

**Endocrinology**
- Thyroid disorders, Diabetes Mellitus, Cushing syndrome, Addisons disease, Hyperlipidaemia, Hyperprolactinaemia, Acromegaly

**Haematology**
- Anemias, Polycythaemia, Luekaemias, Haemoglobinopathies

**Rheumatology**
- Osteo arthritis, Rheumatoid arthritis, Connective tissue disorders, Gouty arthritis, Ankylosing spondylitis

**Recognizing and performing primary management for the following life threatening/ emergency conditions:**

- Acute myocardial infarction
- Gastro intestinal hemorrhage
- Status Epilepticus
- Pulmonary edema
- Shock
- Acute renal failure
- Acute respiratory failure
- Anaphylaxis
- Diabetic ketoacidosis
- Malignant hypertension
- Status asthmaticus
- Comatose patient

**Competency in performing the following clinical skills:**

**Procedures used in medical practice**

- E.C.G. tracing & interpretation
- Lumbar puncture
- Arterial puncture
- Peritoneal tap
- Bone marrow aspiration & biopsy
- P.P.D testing & interpretation
- Joint aspiration
- Pulmonary function testing

**Renal dialysis**

**CPR with cardioversion & intubation**

**Interpretation of laboratory results pertaining to commonly used laboratory tests and specialized laboratory tests such as ABG’s, TFT, Pithuitary, adrenocortical and sex hormones**

**Interpretation of Chest x-rays (Pnemonias, Cardiomegrly), Abdominal x-rays and X-rays of the bones & the joints**
General Objectives
- Establish rapport with the patients and their families, and obtain a comprehensive history.
- Perform a complete physical examination.
- Put a problem list, differential diagnosis & plan of management taking into consideration the available resources
- Assess growth and development, use growth charts, and detect the deviant cases.
- Interpret common laboratory results, and read simple x-rays (i.e. chest, fractures & abdomen).
- Gain pharmacological knowledge of common medications used including antibiotics, decongestants, antihistamines, diuretics, antiasthmatics, chronotropics and inotropics.
- Know how to provide care to the newborns and the infants, and be able to advise the parents about it.
- Demonstrate proficiency in scheduling vaccinations and know their contraindications.
- Diagnose common community illnesses and manage them properly.
- Recognize cases that need referral to the hospital or to the specialist.

Generally the primary care physicians should be able to provide preventive & curative medical care to infants, children & adolescents

Specific learning objectives:

Pediatric emergencies: Recognize following life threatening conditions & stabilize the patient before transferring to the hospital
- Epiglottitis
- Choking
- Anaphylaxis
- Septic shock
- Hypovolemic shock
- Status asthmatics
- Seizure disorders
- CCF & cyanotic heart diseases
- Poisoning and drug overdose

Residents must be competent in cardiorespiratory resuscitation & participate in active resuscitation at least once.

Pediatric procedures - Residents are expected to perform:
- Withdrawing blood
- Starting I.V line
- Lumbar puncture
- Bladder puncture
- Resuscitation of the newborn & older children

Care of the newborn babies:

Knowledge & skill in performing:
- Resuscitation of newborn babies
- Giving apgar score
- Managing neonatal jaundice
- Managing infants of a diabetic mother
- Birth asphyxia
- Respiratory distress syndrome
- Neonatal & intrauterine infections

Introductory knowledge of:
- BPD
- Prematurity
- Genetic counselling
- Mode of inheriting genetic disorders

Genetics and Congenital anomalies:
- Consanguinity & its health impact
- Prenatal diagnosis
- Genetic counselling
- Mode of inheriting genetic disorders

Pediatric Nutrition:
- Breast feeding and its advantages
- Modified cow's milk formula, related advantages and disadvantages
- Weaning food and time of its use.
- Feeding of premature babies

Pediatric Nutrition:
- Managing neonatal jaundice
- Managing infants of a diabetic mother
- Birth asphyxia
- Respiratory distress syndrome
- Neonatal & intrauterine infections

Pediatric Nutrition:
- Protein energy malnutrition, causes, manifestation and management
- Iron deficiency anemia, diagnosis, and management
- Recommended daily requirement for proteins, carbohydrates, fat, vitamins and minerals.

Behavioral Pediatrics:
The residents are required to detect the following abnormal behaviors and refer the child to the hospital:
- Learning disorder
- Mental retardation
- Enuresis
- Language problems
- Hyperactivity

Systemic infections – Recognize & Manage:
- Upper respiratory infections including tonsillitis, otitis media, pharyngitis
- Simple urinary tract infection
- Gastroenteritis and dehydration
- Viral infections like measles, rubella, mumps & chicken pox.

Cardiovascular System:
Ability to recognize the following clinical conditions & transfer patients the hospital for further work up:
- Organic murmurs (congenital and rheumatic)
- Hypertension
- Anemia
- Acute and chronic constipation
- Intestinal infestations
- Chronic malabsorption
- Liver disease

Gastrointestinal System:
Adequate knowledge, ability to diagnose and manage:
- Mild to moderate gastroenteritis
- Simple cases of nutritional anemia
- Chronic diarrhea and malnutrition
- Failure to thrive

Hematological system – Diagnosis & Management of
- Iron deficiency anemia
- G6PD deficiency & hemolytic crises
- Leukemia and other bleeding disorders
- Sickle cell disease & other hemoglobinopathies

Endocrinical conditions:
- Symptoms & signs of diabetes mellitus & diabetic ketoacidosis
- Presentation of hypothyroidism & hyperthyroidism

Skin disorders – Diagnosis & treatment of:
Diaper rash, Impitigo, Eczema, Scabies

Musculoskeletal system - Recognize signs, symptoms & differential diagnosis of:
Septic arthritis and/or osteomyelitis, Rheumatic arthritis, Rheumatoid arthritis & Arthralgia
Residents are expected to be aware of the various radiological facilities and procedures available in DHA. Further demonstrate:

- Ability to explain to the patients the investigational process, and the preparation needed for it.
- Awareness of the side effects and cost effectiveness of various radiological procedures.

**Proficiency in interpreting the following plain x-rays commonly used in Primary Care setting**

<table>
<thead>
<tr>
<th>Chest X-rays</th>
<th>Bones and joints</th>
<th>Abdomen/ Urinary tract &amp; pelvis</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Normal findings of chest x-rays</td>
<td>• Common fractures &amp; dislocations</td>
<td>• Abnormalities of the kidneys (size, position &amp; contour)</td>
</tr>
<tr>
<td>• Abnormalities of thoracic cage</td>
<td>• Fracture healing complications</td>
<td>• Lesions secondary to changes in air content e.g. Atelectasis, Emphysema</td>
</tr>
<tr>
<td>• Disorders of the diaphragm</td>
<td>• Osteomyelitis</td>
<td>• Joint abnormalities e.g. Narrowing, Erosions and soft tissue swelling</td>
</tr>
<tr>
<td>• Mediastinal lesions</td>
<td>• Alteration in bone density</td>
<td>• Solitary and multiple bone lesions</td>
</tr>
<tr>
<td>• Hilary enlargement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ability to recognize the indications, limitations and common abnormalities of the following special studies:**

**Upper gastrointestinal barium studies:**

- Esophageal abnormalities e.g. strictures, filling defects, dilatations and hiatus hernia
- Abnormalities of the stomach and duodenum e.g. ulcers and gastric out let obstructions
- Abnormalities of the small intestine: e.g. dilatations, mucosal abnormality, narrowing and ulcerations.

**Barium enema (conventional and double contrast):**

- Urinary bladder
- Filling defects
- Intravenous pyelography (I.V.P)
- Kidneys (size, shape, dimension & mass)
- Collecting system (caliceal dilatations)
- Pelvis & ureters (dilatation/ displacement)
- Presence of urinary calculi

**I.V & oral cholecystography – Myelography – Arteriography - Computed tomography - Ultrasound (abdomen-pelvis-thyroid)**

**Department of Pathology (Various sections of SMC Laboratory)**

- Duration: 2 weeks

- Awareness of the various laboratory facilities available at S.M.C, Public health and Primary care centers.
- Proficiency to instruct the patients for various common laboratory tests.
- Fundamental knowledge of precautions needed for various common laboratory tests
- Rationality for requesting common laboratory studies.
- Ability to interpret common laboratory tests efficiently in correlation to the available clinical data.
- Awareness of the cost effectiveness of various common laboratory tests.
- Knowledge of drug interference in Lab tests & the caution to be exercised in the interpretation of such situations.

**Department of Dermatology**

- Duration: 1 month

Proficiency in taking dermatological history, performing appropriate physical examination and initiating therapy for the common skin disorders seen at primary care level. Further identify the dermatologic problems that needs urgent referral.

<table>
<thead>
<tr>
<th>Common bacterial skin problems</th>
<th>Common viral skin disorders</th>
<th>Hand-foot-mouth &amp; Common fungal diseases</th>
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<tbody>
<tr>
<td>Impetigo, Erysipelas, Folliculitis, Cellulitis, Erythrasama</td>
<td>Herpes simplex, Herpes Zoster, Herpangina, Molluscum contagiosms, Skin &amp; genital warts, Lymphgranuloma Venereum</td>
<td>Tinea capitis, Tinea pedis, Tinea corporis, Tinea ungium, Tinea cruris, Tinea versicolor Candidiasis</td>
</tr>
<tr>
<td>Common parasitic Infections</td>
<td>Common scaling disorders</td>
<td>Scabies, Pediculosis</td>
</tr>
<tr>
<td>Psoriasis, Seborrhoeic Dermatitis, Pityriasis Rosea, Lichen planus</td>
<td>Common blistering disorders</td>
<td>Tinea manuum, Tinea capitis, Tinea faciei, Tinea corporis, Tinea pedis</td>
</tr>
<tr>
<td>Eczematous disorders of the skin</td>
<td>Atopic Dermatitis, Neurodermatitis, Stasis &amp; Contact Dermatitis</td>
<td>Tinea pedis, Tinea capitis, Tinea corporis, Tinea cruris</td>
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<td>Skin lesions in sexually transmitted diseases</td>
<td>Gonorrhoea, Chancroid, Syphilis, Granuloma Inguinale</td>
<td>Tinea versicolor</td>
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<td>Commonly used Dermatological drugs</td>
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<td>Antifungal drugs</td>
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<td>Tumors of the skin and Blood Vessels</td>
<td>Common use of antimicrobial drugs</td>
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<td>Leukoplakia; Hair problems</td>
<td>Common use of antifungal agents</td>
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<td>Cutaneous manifestation of internal disease</td>
<td>Nutritional deficiency/Misc skin conditions e.g.</td>
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<td>Proper use of the following diagnostic and therapeutic dermatological techniques.</td>
<td>Tinea pedis, Tinea capitis, Tinea corporis, Tinea cruris</td>
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- Proper use of the following diagnostic and therapeutic dermatological techniques.
  - Thermal cauter y Cryotherapy
  - KOH preparation
  - Skin biopsy
  - Use of Wood’s light
  - Excision of small tumor
  - Intralesional injection
  - Acne & acne form eruption
  - Culture of infected material
  - Hair fall
  - Use of topical cream, ointment and solutions
  - Nail problems
  - Corns and callosities

**Department of Dermatology**

- Duration: 1 month

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  - Use of topical cream, ointment and solutions
  - Nail problems
  - Corns and callosities
### Department of Obstetrics & Gynecology  
*Duration: 3 months*

Family physicians provide preventive & curative care to all the women during & after their reproductive age, and even to the children who presents with gynecological problems. **By the end of training, they will be able to perform the following clinical procedures:**

**Gynecological skills:**
- Postnatal check-up
- IUFD insertion
- Family planning counseling

**Obstetrical skills:**
- Routine ante-natal exam with special attention to the 1st ante-natal visit
- Abortion
- Ectopic pregnancy
- Pelvic inflammatory diseases
- Pregnancy complicated with medical disorders like Hypertension, Diabetes, Heart Diseases, Kidney problems, Multiple gestation

**Resident will be able to recognize, investigate and manage the following Gynecological conditions:**
- Breast examination
- Technique of vaginal examination
- Menopause counseling
- Cervical smear and screening for Ca. Cervix
- Normal deliveries
- Perineal repair
- Sexual transmitted diseases
- Amenorrhrea
- Premature rupture of membrane & premature labor
- Patients with bad obstetric history
- Intra uterine growth retardation

**The residents will have sufficient knowledge to diagnose, investigate and manage the following obstetrical cases:**
- Intra uterine death
- Abnormal uterine bleeding
- Various methods of contraception
- Intractable hemorrhage
- High risk pregnancy & deliveries
- High risk postnatal care

**Department of Surgery:  
*Duration: 3 months***

**Demonstrate basic knowledge related to:**
- Implementation of sterile techniques

**Perform the following office surgical procedures:**
- Circumcision
- Incision and drainage of abscesses
- Removal of ingrowing toe nails
- Care of burns
- Multiple fracture of Pneumothorax and hemothorax
- Suturing of simple wounds: Head, face, fingers.
- Mgmt of simple fractures/complications
- Casting and splint use
- Cholecytitis
- Volvulus
- Intractable hemorrhage
- Wound healing and care
- Application of local/regional anesthesia
- Excision of skin & subcutaneous lesions: Sebaceous, dermoid cysts or lipomas

**Manage, stabilize, transport and perform lifesaving procedures in the following conditions:**
- Fracture of the spine
- Blunt trauma to abdomen, head & chest
- Malignancies of the genital tract
- Penetrating trauma to the neck, thorax & abdomen
- Acute arterial occlusion
- Torsion of the testes
- Incarcerated hernia
- Undescended testicle

**Diagnose and refer the following acute surgical conditions:**
- Acute abdomen
- Perforating peptic ulcer
- Appendicitis
- Breast lump
- Thyroid nodule

**Diagnose and manage the following conditions that may need surgery:**
- Cholecystitis
- Benign prostatic hypertrophy
- Hydrocele or varicocele
- Incarcerated hernia
- Benign prostatic hypertrophy

**Further learn and perform preoperative preparation and postoperative patients care.**

### Department of Otolaryngology  
*Duration: 1 month*

**Pertinent to Otology Field:**
- Understand the basic parts of the anatomy and physiology of the ear.
- Take good history, perform relevant physical examination, and assess the hearing.
- Understand how to diagnose and treat all types of acute otitis media, non suppurrative & chronic otitis media.
- Demonstrate proper approach to the patient with vertigo, dizziness and tinnitus. He/she will know how and when to initiate management, perform basic investigations and refer to E.N.T clinic.
- Recognize all types of audiological and vestibular tests, and their clinical significance.
- Recognize speech disorders in children and it’s relation to diminished hearing in childhood. He/she will know how to approach a deaf-mute child and when to refer him.
- Demonstrate how to perform minor procedures like ear syringing, wick insertion and foreign body removal.

**Knowledge in relevance to nose and throat fields, pertaining to:**
- Basic anatomy and physiology of the nose and throat with it’s relation to the clinical practice.
- Complete examination of nose & throat, incluse of the head mirror. He/she will perform indirect laryngoscopy to assist the larynx.
- Diagnosis and management for acute sinusitis, chronic sinusitis, allergic and vaso-motor rhinitis.
- Understand how to diagnose, manage, and approach the patient with bleeding nose.
- Diagnose & manage a patient with blocked nose and recognize when to refer such cases to the specialist
- Learn how to approach and manage a patient presenting with dysphagia.
- Management of patients with throat infections and know when to refer these patients for surgery.
- Causes of dysphonia, diagnose and initiate the management before referring patients to ENT.
- Causes of stridor in children and in adults. He/she will provide the emergency management and will refer patient when needed.
- Causes of swellings in the neck & salivary glands, diagnosis, investigations & when referral is necessitated.
- Interpretation of plain x-rays of the neck, nasal sinuses, sialograms and barium swallow.
- Learn how to perform minor procedures like removal of the foreign body from the nose, removal of fish bone from the throat, nasal cautery and nasal packing for epistaxis.
Department of Ophthalmology

Duration: 1 month

Competency to examine, investigate and treat the following presenting problems:

<table>
<thead>
<tr>
<th>Red eye</th>
<th>Loss of vision</th>
<th>Floaters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blurred vision &amp; diplopia</td>
<td>Tearing</td>
<td>Hyphema / Proptosis</td>
</tr>
<tr>
<td>Eye pain / discharge</td>
<td>Visual field defects</td>
<td>Strabismus / Photophobia</td>
</tr>
</tbody>
</table>

Fundamental knowledge of the following conditions, related to:

**Eye Emergencies:**
- Corneal F.B.
- Angle closure glaucoma
- Intraocular & orbital infections
- Iridocyclitis
- Eye injuries (lid lacerations, corneal abrasion, conjunctural injuries, orbital ecchymosis & fractures, perforating eye injury, chemical contamination
- Retinal hemorrhage
- Retinal detachment
- Sudden loss of vision

**Eyelids & the Lacrimal apparatus:**
- Stye and chalazion
- Blepharitis
- Nasolacrimal duct obstruction
- Trichiasis
- Entropion/ Ectropion
- Dacrocystitis

**Conjunctive & Cornea:**
- Conjunctivitis (Viral, bacterial, allergic
- Keratitis & corneal ulcers
- Ophthalmia neonatorum, kerato, chemical, trachoma)
- Optic Neuritis/ atrophy
- Tumors (retinoblastoma)
- Retinopathy(Hypertension/Diabetes)

**Other eye structures:**
- Hypopion
- Synacchia
- Cataract:
- Keratitis & corneal ulcers
- Retinis pigmentosa
- Pterygium
- Optic Neuritis/ atrophy
- Tumors (retinoblastoma)
- Retinopathy(Hypertension/Diabetes)

**Competency in performing the following clinical skills:**
- Visual acuity testing & color vision
- Fluorescein staining
- Removal of superficial F.B.
- ss of the chalazion
- Visual perimetry
- Epilation
- Optic Neuritis/ atrophy
- Tumors (retinoblastoma)
- Retinopathy(Hypertension/Diabetes)
- Tonometry

Department of Psychiatry

Duration: 2 months (Y1-Y2) 1 month (Y3)

General learning guidelines: The family physician should be able to provide appropriate psychiatric care to children, adolescents, adults, as well as geriatric population. So by the end of the psychiatric rotation, he/she should be able to achieve the following:
- Perform adequate assessment by obtaining an accurate psychiatric history, conducting proper medical state assessment, physical examination, and the complementary social, psychological, & biological investigations.
- Learn and practice the art of getting the psychiatric history through 'the psychiatric interview’ with special emphasis on the doctor patient relationship in this peculiar field of medicine. He/she should be able to elicit the psychopathological phenomena with particular awareness to the cultural coloring of the symptoms.
- Understand the nature of the psychiatric illness as an outcome of an interaction between particular stresses (psychological, social, or physical), against the individual's constitution (physical and psychological).
- Postulate the differential diagnosis, plan of management, taking into account personality constitution, and the social environment.
- Be familiar with psychiatric presentation of physical illness, physical presentation of psychiatric illness, and psychiatric complications of physical problems.
- Understand the principles of psychiatric treatment, both psychological and physical. He/she will be encouraged to practice supervised counselling, supportive psychotherapy and behavior therapy programs.
- Learn the psychopharmacology of psychotropic medications commonly used in psychiatry, with special emphasis to the side effects of these drugs.
- Recognize high risk cases that needs referral to the hospital e.g. patients with suicidal risk, those who are potentially dangerous to the others, and or to avoid adverse social circumstances etc.).

Residents are expected to present cases twice weekly in the ward rounds, and to attend two supervised clinical sessions weekly in the outpatient department. This aims to provide the resident with necessary skills needed to reach an accurate diagnosis of common psychiatric disorders, and to postulate an appropriate plan of management.

Specific learning guidelines:
- Psychopathology
- Effective disorders
- Schizophrenia
- Paranoid states
- The concept of somatization
- Psychological treatment
- Neuroses: anxiety states, obsessive compulsive disorder, and hysteria
- Methods of psychiatric assessment
- Coping with stress
- Organic Psychiatry

Physical treatments used in psychiatry e.g.
- Electro Convulsive Therapy (ECT)
- Psychotropic drugs (Neuroleptics, Antidepressants, Minor tranquilizers and related drugs).
- Psychosurgery (theoretical introduction).

During this two month rotation, the residents will be subjected to the areas of psychiatric sub-specialties, namely:
- Child and adolescent psychiatry
- Community psychiatry & day hospital
- Psychogeriatric
- Rehabilitation and mental handicap
- Alcohol and drug addiction
- Liaison psychiatry (with emphasis on assessing the suicidal risk)
- Clinical Training is aimed to provide the resident with enough knowledge and skills to diagnose and treat the common psychiatric problems in the appropriate areas and to know the scope of psychiatric services for referred cases. Residents will attend one ward round and two supervised outpatient clinics weekly & shall be subjected to the following areas:
- Psychosexual disorders
- Suicide and parasuicide
- Personality disorders
- Factitious disorders
- Eating disorders
- Sleep disorders
- Psychiatric problems in relation to women (associated with menstruation, pregnancy, childbirth and periparium)
Glossary of Abbreviations

- AAFP: American Academy of Family Practice
- BNF: British National Formulary
- CPD: Continuing Personal Development
- CFPC: College of Family Physician of Canada
- DHA: Dubai Health Authority
- GP: General Practitioner
- MOH: Ministry of Health
- MCQs: Multiple Choice Questions
- MEQs: Modified Essay Questions
- PHC: Primary Care
- PHCT: Primary Health Care Team
- RCGP UK: Royal College of General Practitioners, United Kingdom
- SEQs: Short Essay Questions
- WONCA: World Organization of Family Doctors

References

- American Academy of Family Practice
- College of Family Physician of Canada
- Royal College of General Practitioners, United Kingdom
- World Organization of Family Doctors, WONCA