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Acknowledgments

The Curriculum Development Team (CDT) is thankful to Allah, the Lord of the Worlds to bestow upon us His generosity that facilitated our success in developing this curriculum, which we hope meets expectations of its readers.

We also thank those who participated in the various stages of development, from planning and analysis, devising development mechanisms, focus-group discussions, and expert bodies to reviewing the curriculum drafts and amending its formulation and design until its honorable completion.

The CDT sincerely thanks the Scientific Group of the previous curriculum for their effort and excellent work. Part of this work was based on the previous curriculum.

The CDT shares its profound appreciation for the various committees, colleagues, and residents all over the kingdom who contributed to the development of this curriculum. Without their hard work and commitment, this edition would not have been possible.

The group also thanks the Medical Education Department of the SCFHS for their support and guidance.

Curriculum Development Team
What is new in this version?

The Saudi Medical Education Directions for Family Medicine (FM) training program (SaudiMED-FM 2020) is a competency-based curriculum that will be conducted for three years. The curriculum competencies were adopted from different international and national frameworks in addition to the New Model of Care (MOC) that aims for successful Saudi healthcare transformation by 2030.

The curriculum will focus more on shaping the future of family physicians by enhancing their clinical skills through more clinical exposure throughout all years in emergency settings in addition to FM clinics. There will be an area of flexibility in the curriculum in organizing and planning for specific rotations (e.g., ophthalmology, orthopedic, radiology, elective, etc.) to achieve the competencies in each rotation by different modalities (e.g., full rotation, clinics and workshops, clinic and simulation, etc.). The curriculum also allows for more elective rotations, which can satisfy residents’ special interests and bridge the gap between knowledge and specialty skills.

Certain courses that were included in the previous curriculum, like introductory and advanced courses, will not be included; however, their content will be covered in the FM rotation and in weekly academic day activities (WADA). Research can be conducted as a course or the contents can be embedded in the academic activities. A research proposal submission is mandatory for all residents, while the submission of a full thesis is optional for the training center.

The curriculum also enhances the academic activities for the residents by a mandatory release of all residents for one full-day per week to attend and participate in WADA. The curriculum includes a chapter for teaching and learning, which will guide trainers and residents toward different education and learning strategies that can be used in diverse settings to enhance residents’ professional development.

The assessment will include summative and formative assessment in KSA—knowledge (i.e., end-of-year progress test and a weekly academic program), skills (i.e., a portfolio, an objective structured clinical examination (OSCE)) and attitude (i.e., an in-training evaluation report (ITER)—based on roles and regulations of the SCFHS, in addition to part 1 and a final board examination.
What is next?

The SCFM approved curriculum development plan is consistent with the CBT curriculum development processes; role definition, competency framework development, competency mapping, teaching and learning methodology development, curriculum development, assessment methodology development, and implementation.

This edition (the fourth) is considered operational and ready for implementation in accordance to the executive council for training and education agreement (No. 2018007343; October 29th, 2018), and manual approval by the SCFM (16th meeting; April 24th, 2019) and Training central committee (10th meeting; June 17th, 2019), however, a further review and update will follow according to the timeframe presented below:
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACGME</td>
<td>Accreditation Council for Graduate Medical Education</td>
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<td>CanMEDS</td>
<td>Canadian Medical Education Directions for Specialists</td>
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<td>CBD</td>
<td>Case-Based Discussion report</td>
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<td>CBT</td>
<td>Competency Based Training</td>
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<td>CDT</td>
<td>Curriculum Development Team</td>
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<tr>
<td>COT</td>
<td>Consultation Observation Tool</td>
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<td>CQIPS</td>
<td>Continuous Quality Improvement and Patients Safety</td>
</tr>
<tr>
<td>DOPS</td>
<td>Direct Observation of Procedural Skills report</td>
</tr>
<tr>
<td>EYPT</td>
<td>End-of-year progress test</td>
</tr>
<tr>
<td>FM</td>
<td>Family medicine</td>
</tr>
<tr>
<td>ICEE</td>
<td>Idea, concerns, expectations, and effect</td>
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<tr>
<td>ITER</td>
<td>In-Training Evaluation Report</td>
</tr>
<tr>
<td>Mini-CEX</td>
<td>Mini-Clinical Experience Exercise</td>
</tr>
<tr>
<td>MoC</td>
<td>Model of care</td>
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<tr>
<td>OSCE</td>
<td>Objective Structured Clinical Examination</td>
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<tr>
<td>PASS-FM</td>
<td>Postgraduate Assessment System for Family Medicine</td>
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<tr>
<td>R1</td>
<td>First year of residency (postgraduate year 1)</td>
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<tr>
<td>PTC</td>
<td>Program Training Committee</td>
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<tr>
<td>SaudiMED-FM</td>
<td>Saudi Medical Education Directions for Family Medicine</td>
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<tr>
<td>SCFHS</td>
<td>Saudi Commission for Health Specialties</td>
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<tr>
<td>SCFM</td>
<td>Scientific Counsel for Family Medicine</td>
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<td>SEC</td>
<td>Scientific Examination Committee</td>
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<tr>
<td>SOE</td>
<td>Structured oral examination</td>
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<tr>
<td>WADA</td>
<td>Weekly academic-day activities</td>
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<td>WONCA</td>
<td>World Organization of General Practitioners/Family Physicians</td>
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Chapter One:
Curriculum Design Methodology
Introduction

Family medicine is a unique specialty in which the practitioners provide continuous comprehensive care for all patients of both sexes and at any age; thus, it is of absolute importance to have a unique curriculum design that ensure residents’ acquisition of necessary competencies, knowledge, and skills to fulfill those tasks.

The competency-based training (CBT) model has engulfed postgraduate medical and surgical training around the globe since the late 90s. Numerous competency frameworks for postgraduate training in medicine have been developed and implemented by several national and international organizations like the World Health Organization, Canadian Medical Education Directions for Specialists (CanMEDs), the Accreditation Council for Graduate Medical Education (ACGME), and the World Organization of General Practitioners/Family Physicians (WONCA) frameworks.

The CanMEDs competency framework has been adopted by the SCFHS since 2011. Since that time, the transformation of postgraduate training has been a progressive phenomenon. However, owing to the apparent lack of experience with the CBT model by most of the training faculty workforce, and the high expectations of policymakers concerning the simplicity of the implementation process, the progression was slow and significant concerns arose.

The current FM curriculum in Saudi Arabia is a 4-year program, which accommodates around 1500 candidates from all levels across 38 programs distributed around the kingdom. The current curriculum is comprehensive, with clear competencies that were mapped with CanMEDs’ competency framework. However, major issues regarding clarity, interconnection, and applicability were raised over the years that followed implementation.

Finally, in response to urgent requirements to expand FM services to achieve the transformative goals of the new Saudi Vision 2030 MOC, many recommendations regarding curriculum design changes were suggested. A revealing recommendation was to reduce the residency training curriculum to three years, which, in turn, mandated a full review of all the curriculum components and processes.

Objectives

The Scientific Council for FM (SCFM) established the Curriculum Development Team (CDT) to plan, execute and oversee the activities required to fulfill the following aim and objectives:

Our aim was to design a competency-based FM curriculum for the SCFHS postgraduate training programs that ensures adequate duration, content, and operations, to achieve growth targets.

We believe that, to achieve our aim, the following objectives must be met:
The targeted competencies must be aligned with the family physicians' roles in healthcare, as defined by the National Vision 2030.

The intended curriculum must fulfill all the principles of the CBT model.

All training operations must be reviewed to reduce redundancy and variability among programs.

The duration of training shall not exceed a successful completion of 3 years.

Situational Analysis

To correctly evaluate the current situation, assess stakeholders’ expectations, and collect creative solutions for future adaptation, the CDT conducted a nation-wide resident survey, four regional focus-groups sessions, and a literature review for comparative study.

Conclusions and recommendations of the situational analysis

The CDT formulated the following recommendations in the process of curriculum development:

• To review the CanMEDs and other international competencies frameworks to modify, adapt, or generate a national competency framework that is compatible with the national healthcare system, can be generalized for different specialties, and is well-articulated in a way that minimizes confusion or misinterpretation.

• To select primary reference textbooks that should cover 70-80% of the training curriculum.

• To reduce the curriculum duration to 3 years, providing that the first 2 years will be a “junior” level and the third year will be a “senior” level.

• To shift the learning techniques from theoretically based to practice based learning and adapt various learning and assessment techniques (e.g., electronic, simulation, interprofessional learning, self-evaluation, etc.)

• To emphasize the use of assessment as a learning technique by forcefully implementing processes of feedbacks and reflections.

• To review the contents and duration of all academic courses (i.e., limit introductory courses to only 2-4 weeks; limit content to mainly orientation to specialty, training policies and procedures, communication skills, and practice-related skills; incorporate advance course contents with weekly academic activities; limit research courses to 1-3 weeks; incorporate it with weekly academic activities; and to limit the mandatory research activities to a successful submission of a research proposal or agreed upon scholar projects (e.g., quality improvement project, community service project, clinical practice guidelines development project, etc.)
To increase the allocated time to weekly academic activities to a full day and utilize it more effectively and efficiently by providing a well-structured program that consists of different themes for each residency level and implementing various educational techniques.

To develop clinical training policies, objectives, and methodology that are flexible, applicable, and easily adapted by all accredited centers; however, the policies should note the necessity of effective clinical exposure from the first year of residency (R1), and it should differentiate between the levels of training.

To design the process of clinical supervision that determines the appropriate level and methods of supervision for every clinical activity.

To emphasize the importance of continuity of care principles through longitudinal FM clinical services or by other means.

To revise the hospital rotation curriculum to determine what rotation needs are required: remain as is, made longer (emergency room [ER]), shorter (psychiatry, obstetrics and gynecology [OB/GYN]), or even exempted from the whole curriculum (radiology, ear-nose-throat [ENT], ophthalmology) and replaced by other activities; and to modify the curriculum processes to be flexible regarding timing of rotations throughout the residency program.

To revise and amend the clinical-based assessment tools to improve their validity, reliability, and practicality; they should reflect residents’ level, the context of evaluation, a clear link to competency under assessment, and the ability to segregate and combined results of different tools with each other to provide a broad picture of residents’ performances.

To include an academic-activities written exam to the summative assessment package of the current curriculum, and a suggested mathematical matrix to collect and collate precise indicators of residents’ progression in different training components and competencies.

Development of the Competency Framework

In response to situational analysis results, and with the current shift toward a national MOC that is designed to achieve the Kingdom Vision 2030, it became necessary to review all components of the current curriculum to overcome the current pitfalls and meet stakeholders’ expectations—to fulfill the national vision requirements of competent family physicians.

An idea of developing a national FM competency framework that incorporates the new MOC with the well-established international framework was pursued according to the initial agreement with the SCFHS training executive administration. The process of developing the competency framework was planned and executed by the CDT as follows:

- Develop a role definition of the family physician according to the new MOC.
- Revise the international competency framework; i.e., CanMEDs, ACGME, WONCA, and Saudi MED, for undergraduates.
- Meet with an expert group panel to develop recommendations for the intended framework.
Revise the initial drafts to reach consensus among the CDT and obtain majority approval among the SCFM and executive training committee

Methodology

After an elaborate discussion, the expert group concluded that the proposed framework is worthy of preliminary approval and advised we proceed to the next phase of developing a well-structured competency statement for each system; developing a draft list of possible tasks for each competency; and, finally, conducting a KSA analysis for each task. For this, a subcommittee was created.

The subcommittee convened several times to review workshop comments, conclusions, and recommendations; and to develop a draft list of functional and foundational competencies, which have been reviewed and evaluated by the expert group. A rating survey was conducted to gather the opinions of the expert group on the first draft of the foundational (core) and functional competency framework. After reviewing the survey results, minor modifications were applied, and a final draft was developed by the subcommittee and submitted to the CDT for further processing.

Proposed SaudiMEDS-FM framework

The CDT convened for several meetings to discuss and simulate competency mapping for the proposed framework, and made several modifications to ensure better applicability, clarity, and generalizability of the competency statements. A major modification was to merge the functional competencies in the core competency as a separate domain.

The final version of the framework comprised six domains that were adopted and modified from the CanMEDS-FM 2017 and ACGME frameworks. The intention was to develop a classification of competency domains that will include most of the competencies in the adapted frameworks, include the new MOC systems, and concise enough to minimize overlapping and confusion.

The CDT adapted the domains “medical education” and “patient care” from the ACGME instead of the “medical expert role” in CanMEDS: primarily, because they are almost the same in both frameworks; and, secondary, because the presence of separate domains will make it possible to integrate the new MOC systems in the patient care domain without affecting or overlapping with other domains.

It was also adapted to combine communication and collaboration roles in CanMEDs together to be more like the “interpersonal and communication skills” competency in the ACGME frameworks, simply because of the obvious interconnection and interdependence between the two roles, which makes it useless or even counterproductive to try to separate them.

The following is a list of the adapted competency domains of the SaudiMEDS-FM 2020: a detailed description will be presented in Chapter 2:

1. Medical Knowledge
2. Patient Care
3. Communication and Collaboration
4. Management and Leadership
5. Professionalism
6. Scholarship
Development of Curriculum Structure

The CDT initiated the process of developing the curriculum structure parallel to the development of the competency framework to meet the project deadline and to allow overlapping of ideas between the two subjects as they are clearly interconnected. The CDT generated recommendations for the new curriculum that incorporated the situational analysis findings with a benchmark of curriculum structures from well-known universities and organizations in North America and Europe. Then, the expert groups studied these recommendations and developed several suggested structures that were reviewed and modified by the CDT, the SCFM, and, finally, the SCFHS executive training administration.

Final curriculum structure design recommendations

The following are the key recommendations agreed upon by the expert group after designing and refining four different curriculum structures:

- To reduce the duration of the curriculum to 3 years: first and second years to be considered “junior level” and the third year as “senior level.”
- To reduce the Introductory course to two weeks with an orientation to the program and basic FM principles.
- To reduce the research course to a 1–2-week block or incorporate it in the weekly academic activities.
- To waive the requirement to submit the research thesis and replace it with a successful submission of a research proposal.
- To cancel the Advanced FM course and incorporate its topics in the clinical rotations and the weekly academic activities.
- To extend the weekly academic activities from half-day to full day and include procedural skills and hands-on workshops.
- To modify the training processes in clinical rotations, and on-call duties to be more flexible and allow a certain level of variations per the available settings.
- To emphasize clinical practice as the core training methodology by integrating training processes with the clinical services, and early initiation of levels appropriate for clinical practice.
- To emphasize the community orientation practices by allocating time to support community services and health advocacy, through relevant interprofessional collaborations and teamwork, and by developing a sense of responsibility and leadership.
- To encourage elective rotation in FM subspecialties such as women’s health, home healthcare, preventive medicine, and geriatric and palliative care.
- To allocate time to learn procedural skills.

Specific considerations

Elective rotations:

The new structure is supposed to stress the elective rotations to give the residents the chance to select some clinical rotations that might not be taken during the whole program, or to extend the current clinical rotations.
that require further training. The elective rotations have more value in the program structure than do some of basic rotations like ENT, dermatology, ophthalmology, and radiology - which can be delivered as workshops - and by allowing more time for electives. Residents might select these specialties if they want to have an actual rotation with specialists.

Full-day academic activities

The new curriculum suggests changing the current weekly academic activities from half day to a full-day activity to maximize the benefit from residents’ time and reduce redundancy owing to overlap between training program topics and schedules. It is suggested to be done by residents in the morning session. In the afternoon session, it should be group work, hands-on activities, simulations, and so on to address epidemiology, research, communications skills, consultations, and other clinical competencies that are omitted from the main program structure such as radiology slides and interpretations. It is advisable to run 30–36 weekly educational activities per academic year, and around 20 of them should have full-day activities.

Workshops and simulations

Conducting workshops and simulations for some of the FM rotations instead of sending the residents to other departments is based on the following beliefs:

- Poor exposure of the FM residents to the related cases in the assigned rotation; e.g., orthopedic.
- The training in special departments requires special operating skills to maximize the benefit e.g., slit lamp in ophthalmology rotation, nasopharyngeal scope in ENT, etc.
- Presence of elective rotations in the new curriculum that can compensate for any gaps from the workshop.
- Presence of polyclinics primary care centers that have different specialties in the same center, where the residents could spend time matching their acquired workshop skills with real practice, such as at a dermatology clinic.

Conclusion

Standardizing the curriculum structure in the FM residency program would unify the learning process, assessment, accreditation, and monitoring among the FM programs around the kingdom. On the other hand, the offered primary care services vary per institution, and limiting the program to one structure would probably waste significant opportunities and resources that can be used in the same primary care centers to improve training. Therefore, the expert group advises unifying the program structure initially in all programs with the same standards to ensure the implementation of the curriculum; in the second review of the curriculum, more flexibility will be introduced to allow big programs (like FM academies with capacity of 100 residents or more) to develop their own structure based on their resources, needs, and ambitions. The final version of the curriculum structure will be presented in Chapter 3.
Chapter Two:
SaudiMED-FM 2020
Competency Framework
Introduction

The SaudiMED-FM 2020 is a competency framework designed for all family physicians practicing in the kingdom who wish to pursue a career in a specialty. This version of the framework provides the competency domains definitions and descriptions and the statements of competencies and sub-competencies in each domain.

This framework was developed as an integration of adapted frameworks (CanMEDS-FM 2017 and ACGME) and the National Vision 2030 new MOC. Several drafts were developed and evaluated by expert members from the SCFM, the SCFHS, national universities and medical schools, and FM programs around the kingdom for 6 months (from August 2018 to January 2019). This version was submitted for final approval by the SCFHS.

The new national MOC was designed to develop healthcare systems that empower people with knowledge, skills, and access to holistic healthcare services, and to fully integrate these systems with each other and with other systems in the community. This design is based on simple notions: high priority to preventive and promotive services, equity of services distribution and accessibility, and outcome-based monitoring and accountability.

The new MOC re-establishes the specialty of FM at the center of its design, as it relies solely on family physicians to initiate, manage, and monitor most of its components. Therefore, the project of developing a national competency framework that is aligned with the national MOC was launched as an initiative by the SCFM to ensure compatibility of the training outcomes with the national demands of competent workforces.

The SCFM acknowledges the huge difficulties and challenges in designing a flawless competency framework. It also acknowledges the efforts needed to develop and refine this framework to reach the utmost level of perfection achievable, and it aspires to adopt the entrustable professional activities (EPAs) and milestones system of evaluation in the following curriculum versions.

The SaudiMED-FM 2020 framework is composed of 24 competencies distributed across six main domains:
Medical Knowledge

Definition

The family physician is competent to recall, analyze and apply a broad and deep fund of knowledge to proficiently care for a diverse patient population with undifferentiated healthcare needs.

Description

The medical knowledge domain is about establishing and evolving biomedical, clinical, epidemiological, and social-behavioral sciences as well as applying this knowledge to patient care. Family physicians are required to understand and discuss a very wide spectrum of information to meet patients’ diverse needs, and they are required to apply this information into practice correctly and efficiently.

Medicine is constantly evolving, and because of the unique nature of the specialty, the scope of knowledge expected to be covered by residents is insufficient for actual practice. A desire for and an understanding of the need for a lifelong-learning approach to the practice of FM is a requisite attribute for physicians providing quality healthcare.

Consequently, this domain seeks to ensure that residents are trained to continually investigate, question, and seek new knowledge; share those best practices with medical colleagues; and employ said knowledge in the diagnosis and treatment of patients by practicing appropriate decision-making processes.

Competencies

MK 1: Demonstrates medical knowledge of sufficient breadth and depth to practice FM.

MK 2: Applies critical thinking and decision-making skills in patient care based on the best available information and resources.

1- Adapted from the ACGME competency framework
Patient Care

Definition

The family physician is competent to provide accessible, quality, comprehensive, compassionate, continuous, and coordinated care by using the biopsychosocial perspective and patient-centered model of care with patients in the context of family and community, not limited by age, sex, disease, or clinical setting.

Description

The patient care domain is about the functional competencies that are required by a family physician to provide services per the national MOC systems. The family physician should deliver these functions to all patients and in any setting, demonstrating the capability of ensuring patients' safety, best clinical outcomes, and satisfaction.

The new MOC is designed based on “systems” of care, rather than specialties or settings. By using a system-based modeling approach, integration is intrinsically built into the new MOC. The six systems of care were selected based on the six tasks a person will have from before they were born, till the need to support their bereaved family after they have died: preventive and promotive care, maternal and child care, acute and urgent care, chronic care, planned care, terminal care.

Family physicians have key roles in all systems of the new MOC; however, the level of involvement varies from sole provider to only a care coordinator. Furthermore, family physicians should be adaptable to different clinical situations, master the use of time as a tool for resolving uncertainty, and should be capable of maintaining high-quality and comprehensive care for all patients.

Competencies and sub-competencies

PC 1: Provides preventive and promotive care to all individuals and their families in the targeted community.

PC 1.1: Promotes a healthy lifestyle including exercise, healthy diet, and avoidance of hazardous substances and behaviors.

PC 1.2: Provides screening services according to current best practices.

PC 1.3: Arranges and delivers Immunization and pharmacological interventions to targeted populations including specific interventions, seasonal campaigns, Hajj, school wellness programs, and traveling abroad.

PC 1.4: Applies appropriate protocols for notification, isolation and handling cases with flagged or unidentified infectious diseases and participate in diseases surveillance to minimize risks of an outbreak.

PC 1.5: Applies appropriate protocols to minimize microbial resistance to antibiotics in the community by the means of health education, counseling, conscious antibiotics prescription and managing antibiotic-resistant cases.
PC 2: Provides continuous maternal and child care through a well-structured system to support safe pregnancy and delivery and foster children’s wellbeing.

PC 2.1: Provides premarital care to “would be” married couples through counseling, family planning, and screening for genetic and infectious diseases according to the national health system.

PC 2.2: Provides comprehensive preconception and antenatal and postpartum care through a well-structured system of screening, assessment, managing, and monitoring.

PC 2.3: Manages safe delivery of newborns by care coordination and assisting with or applying direct interventions according to the situation to ensure mothers’ and newborns’ safety.

PC 2.4: Promotes child wellbeing through well-structured care including health counseling, screening, immunization, and monitoring.

PC 3: Manages acute or urgent problems by providing needed treatment in the right place at the right time.

PC 3.1: Identifies and stabilizes patients with emergencies and life-threatening conditions to facilitate appropriate, timely and safe care delivery.

PC 3.2: Manages patients with common acute illnesses through comprehensive “biopsychosocial” care to alleviate acute health problems.

PC 3.3: Participates effectively in rapid response systems to facilitate better clinical outcomes and the proper utilization of resources.

PC 4: Manages patients with chronic illnesses and terminally ill patients by providing comprehensive biopsychosocial-spiritual and integrated and coordinated care to improve patients’ and caregivers’ quality of life.

PC 4.1: Manages chronic illnesses through well-structured, continuous and evidence-based healthcare services to control symptoms, and prevent complications.

PC 4.2: Coordinates comprehensive and patient-centered multidisciplinary care for patients with chronic illnesses per patients’ needs and conditions.

PC 4.3: Provides outreach care to patients with chronic illnesses at home, and assists caregivers with the necessary information and skills to improve quality of care.

PC 4.4: Provides comprehensive multidisciplinary care for terminally ill patients and their families, per their culture, goals, and needs, to improve patients’ and their families’ quality of life.

PC 5: Delivers specialty-specific planned care and coordinate other planned care through an accessible and efficient pathway.

PC 5.1: Identifies and assesses patients in need of elective interventions, and provides necessary information regarding indicated procedures including preparation, hospital stay, risk of complications, and prognosis.

PC 5.2: Performs FM-specific elective procedures in a well-controlled and safe environment.

PC 5.3: Provides post-procedural care to assess improvement and monitor complications.
Communication and Collaboration

Definition

The family physician is competent to communicate and collaborate effectively with patients, families, physicians and other health professionals.

Description

The communication and collaboration domain of the framework is about developing and maintaining productive relationships with patients, families, and health professionals through effective communication and collaboration, appropriate documentation, and active use of technology to enhance performance.

Effective communication and collaboration requires family physicians to develop meaningful relationships with their patients, patients’ families, and healthcare professionals involved in the care of those patients. To achieve these qualities, the family physician must be a competent listener and speaker, and capable of combining verbal and nonverbal interactions to successfully share information.

A foundation of trust must be established between family physicians and their patients, patients’ families, and healthcare workers, to facilitate an open and healthy environment and ensure honest dialogue. Combining interpersonal and communication skills with accurate record keeping and appropriate use of technology ensures that the information communicated throughout the treatment process is comprehensive, appropriate, and timely.

Competencies

CC 1: Develops and maintains meaningful relationships and effectively communicates with patients, families, physicians, and other healthcare professionals.

CC 2: Collaborates with healthcare professionals and participates effectively in teamwork and inter-professional activities.

CC 3: Documents and shares patient information appropriately to facilitate clinical decision-making, and preserve confidentiality.

CC 4: Uses technology to enhance communication with individuals’ community and health professionals.
Management and Leadership

Definition

The family physician is a competent leader and a role model to others’ in planning, managing, and monitoring healthcare processes to achieve health goals, optimize resource utilization, and maximize patients’ safety.

Description

The management and leadership domain focuses on the underpinnings of good medical practice in different healthcare systems: safety and quality, physician advocacy, health insurance, healthcare economics, care transitions, and so on. All these diverse facets of medical practice are systems that require management skills to operate and leadership skills to navigate.

Family physicians must have awareness regarding the healthcare systems in which they operate and can provide high-quality, cost-effective medical care in the context of these systems and their attendant resources. They should have the ability to prioritize, use health resources wisely, and effectively execute tasks collaboratively with colleagues.

The family physician should incorporate the elements of population-based medicine in the management of primary care practice by identifying the community health needs, participate in community diagnosis, and ensure community participation in the changing process.

Competencies

ML 1: Provides cost-conscious medical care to optimize resources utilization.
ML 2: Assesses, improves, and monitors the quality of care delivered to patients and their families.
ML 3: Applies patient safety principles and measures to minimize the incidence and impact of, and maximize the recovery from, adverse events.
ML 4: Advocates for individuals, families, and community health according to their health needs and priorities, based on the principles of the community-oriented primary care model.
ML 5: Manages conflicts in the workplace effectively and professionally, whether they are personal conflicts, disputes with patients and their families, or conflicts within the healthcare team.
Professionalism

Definition

The family physician is competent to act professionally in all situations related to personal wellbeing and the wellbeing of patients and their families.

Description

The professionalism domain of the framework focuses on the attitude and behaviors of the family physician; emphasizing that the family physicians must treat all people with respect, compassion, and dignity. They should prioritize patient needs over self-interests. Moreover, they should accept and understand that they are accountable not only to the patient but also to their colleagues and society.

Family physicians’ belief in the capability of the patient-centered model is central to organizing and delivering the best possible healthcare. They believe that the keys to healthcare excellence are a high degree of competency and integrity among themselves and their professional colleagues, respecting patients’ autonomy, sharing responsibility, and responding to diverse populations needs.

Professionalism requires individuals to accept responsibilities, and accountabilities, through maintenance and continuous development of competencies, and practice of self-regulation and commitment to ethical standards.

Competencies

**PO 1:** Adheres to ethical principles derived from the profession, Islamic faith and culture, and humanist values.

**PO 2:** Recognizes and adheres to rules and regulations organizing the healthcare practices in the kingdom.

**PO 3:** Develops and maintains professional conduct and sense of accountability.

**PO 4:** Demonstrates a commitment to physician health and wellbeing.
Scholarship

Definition

The family physician is competent to provide a lifelong commitment to reflective learning; and to create, search, evaluate, and educate others on scientifically based clinical information.

Description

The Scholarship domain of the framework focuses on family physicians’ commitment to lifelong learning, self-directed learning, teaching others, and contribution in the generation and dissemination of new information. Family physicians evaluate personal and professional strengths through self-evaluations, reflections, and seeking feedback from faculty and mentors.

Family physicians can access and review scientific literature and data in medical journals and databases, apply critical appraisal techniques to determine data validity and relevance, and finally manage to translate it to meaningful practices that benefit all patients.

Family physicians contribute to scholar society through their ability of collecting observations, analyzing findings, describing outcomes, and drawing conclusions.

Competencies

**SC 1:** Demonstrates capacity for reflective practice, personal growth, and lifelong learning.

**SC 2:** Contributes effectively in educating individuals and community, including patients, students, residents, and other healthcare professionals.

**SC 3:** Integrates best available evidence into practice considering context, epidemiology of the disease, comorbidity, and the complexity of patients.

**SC 4:** Contributes to scientific research and publication of knowledge relevant to FM practice.
Alignment with other competency frameworks

There are several competency frameworks around the world that have been generated according to each country’s unique healthcare system and the perception of physicians’ roles in those systems. Although they are typically similar, there are some differences in the categorization of competencies, the weight of each category, and the definitions of some competencies.

In this section, we highlight the similarities between the SaudiMED-FM 2020 and other national and international frameworks (i.e., ACGME, CanMEDS, and SaudiMED for undergraduates (SaudiMED-UG)) to generate some sort of alignment to improve understanding of the SaudiMED-FM 2020 framework components.

Medical knowledge

This domain was adopted from the ACGME framework and resembles the “scientific approach to practice” competency in the SaudiMED-UG. In CanMEDs, this domain is covered within the “medical expert” role.

Patient care

This domain was also adopted from the ACGME framework and resembles the “patient care” competency in the SaudiMED-UG. In CanMEDs, this domain is covered within the “medical expert” role. The major differences lay in the adoption of the new MOC in the competencies within this domain.

Communication and collaboration

This domain was adopted from the SaudiMED-UG framework and resembles the “Interpersonal and communication skills” competency in the ACGME. In CanMEDs, this domain is covered within the “communicator” and “collaborator” roles.

Management and Leadership

This domain was adopted from CanMEDs “leader” and “advocator” roles and resembles the “system-based practice” competency in the ACGME and “community-oriented practice” competency in the SaudiMED-UG.

Professionalism

This domain is the best example of how frameworks are almost identical in some parts. This domain resembles the “professionalism” competency in the ACGME and SaudiMEDUG frameworks. In CanMEDs, this domain is covered within the “professional” role.

Scholarship

This domain was adopted from CanMEDs role “Scholar” and resembles the “practice-based learning” competency in the ACGME and the “research and scholarship” competency in the SaudiMEDUG.
<table>
<thead>
<tr>
<th>CanMEDs</th>
<th>Medical Expert</th>
<th>Medical Expert and Advocate</th>
<th>Communicator and Collaborator</th>
<th>Advocate and Leader</th>
<th>Professional</th>
<th>Scholar</th>
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<tr>
<td>ACGME</td>
<td>Medical Knowledge</td>
<td>Patient Care</td>
<td>Interpersonal and Communication</td>
<td>System Based Practice</td>
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<td>SaudiMED-UG</td>
<td>Scientific Approach to Practice</td>
<td>Patient Care</td>
<td>Communication and Collaboration</td>
<td>Community Oriented Practice</td>
<td>Professional</td>
<td>Research and Scholarship</td>
</tr>
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</table>
Chapter Three:
Curriculum Structure
Clinical Rotation

Guide

General curriculum

The duration of the FM training program is 3 years. Training is structured so that a coherent and integrated educational program with progressive resident responsibility is ensured. Education is designed as a spiral curriculum: through a process of repetition, re-exposure, and re-emphasis, residents learn and continue to add to their overall knowledge and skills.

Training consists of two phases. The first two years (“junior”) are designed for training mainly in major specialties (FM I and II, internal medicine, general surgery (GS), pediatrics, emergency medicine, OB/GYN, psychiatry, ENT, dermatology, and ER). The third year (“senior”) training is mainly in FM III.

The rotations in the 1st and 2nd years can be taken interchangeably without a specific order. The curriculum rotations are categorized based on training processes options as follows:

**Full-time rotations:** These should be taken in the hospital with the allocated specialty where the resident works as a full-time resident with the same duties and responsibilities of a junior resident from the same specialty (e.g., internal medicine, GS, pediatric, OB/GYN, psychiatry, emergency medicine, and dermatology)

**Multi-options rotations:** Program administration should conduct these per the available resources: as a workshop, simulation, in weekly educational activities, or in standard hospital rotations (e.g., ENT, ophthalmology, radiology, orthopedic and musculoskeletal, geriatric, palliative, diabetes care, and women’s health)

Below, we present different structural models of the FM curriculum. Models A and B present a different order of hospital rotations in years 1 and 2, while Model C presents hospital rotations for all major specialties without conducting workshops. The Program Training Committee (PTC) should choose the most appropriate FM program structure based on the available resources; thus, the program structure is not limited to the below models. In addition, further splitting of the long rotations to not less than 4 weeks of duration for each part is possible if needed.
### Module A

**FAMILY MEDICINE PROGRAM STRUCTURE**

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<td>8 w. OG</td>
<td>4 w. ELC</td>
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<td>4 w. AEM</td>
<td>4 w. DER</td>
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<td>4 w. GS</td>
<td>8 w. PSY</td>
<td>36 w. FM III</td>
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<td>12 w IM</td>
<td>12 w. FM II</td>
<td>+ 4 w. Selective rotations</td>
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<td>4 w. PEM</td>
<td>16 w. Multi-options rotations (ENT/ORT/MSK/OPT/RAD)</td>
<td>(GER / PAL / DC / WH)</td>
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### Module B

**FAMILY MEDICINE PROGRAM STRUCTURE**

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<td>Total 52 W.</td>
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### Module C

**FAMILY MEDICINE PROGRAM STRUCTURE**

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<td>4 w. PEM</td>
<td>4 w. ENT</td>
<td>(GER / PAL / DC / WH)</td>
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<td></td>
<td>8 w PED</td>
<td>4 w. OPT</td>
<td>Total 52 W.</td>
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**Abbreviations:**
- **FM:** Family Medicine
- **PSY:** Psychiatry
- **AEM:** Adult Emergency Medicine
- **GS:** General Surgery
- **PEM:** Pediatric Emergency Medicine
- **OG:** Obstetrics and Gynecology
- **IM:** Internal Medicine
- **PED:** Pediatric
- **DER:** Dermatology
- **ENT:** Otolaryngology
- **ORT/MSK:** Orthopedic / Musculoskeletal
- **OPT:** Ophthalmology
- **RAD:** Radiology
- **ELC:** Elective
- **GER:** Geriatrics
- **PAL:** Palliative
- **DC:** Diabetes Care
- **WH:** Women’s Health
Elective and selective rotations

The FM curriculum offers several opportunities to develop residents' KSA through the elective rotations, which are distributed in years 2 and 3. The FM curriculum stresses elective rotation to give the residents the chance to select some clinical rotations that might be not taken in the program (e.g., neurology, urology, nephrology, etc.) or to choose clinical rotations in which they need further training. The elective rotation has more value in the programs that choose to conduct workshops for multi-options rotations owing to bridging knowledge gaps and residents’ desire to work with relevant clinical specialists.

During the third year of the FM residency, the curriculum offers further selective rotation in the FM sub-specialties, which are an extension of the FM specialty. In case these selective sub-specialties are not feasible, the resident should spend the selective rotation in FM III. Upon mandatory approval from the director of the training program, residents can choose from the following electives from any clinical specialty to enhance their primary care interest:

- Geriatric care
- Home healthcare
- Adolescence medicine
- Diabetic care
- Occupational medicine
- Women's health
- Palliative care
- Research field (if the resident is going to conduct a full research thesis)
- Others (as appropriate)

Multi-options clinical rotation

The FM curriculum has focused on the resident to gain the needed competencies in the FM program. These competencies can be gained by scheduling the residents to rotate in the main specialties. Other competencies and skills can be obtained by either rotating the residents in these specialties (e.g., ophthalmology, ENT, radiology, orthopedic, home, healthcare, palliative) or conducting educational activities (workshop) that achieve the same outcome.

Workshops are designed to be intensive educational programs for a relatively small group of residents to gain specific competencies. It is a scientific event with the objective of presenting updated knowledge and to teach medical skills that are needed to practice FM.

The curriculum is designed to be flexible to residents’ needs, availability of resources, and readiness of the medical setting. The training administration shall schedule the residents in the traditional hospital rotations (example 1) or conduct workshops for all or some of the multi-options rotations (examples 2 and 3) that ensures delivering the updated knowledge and gaining the procedural skills that match their required competencies.
These workshops can be conducted over (around) 4 weeks per the PTC. It is advisable to utilize the skill labs, and activate interprofessional education by encouraging participation of specialties’ doctors, nurses, and other healthcare professionals to obtain maximum benefits from the workshop. The learning style of these workshops focuses on small group discussion, assignments, hands-on activities, and simulations. During the workshops, the resident is requested to perform clinical duties that enhance the learning objectives of the workshops in specialty clinics and/or FM clinics per the program administration decision; i.e., not less than 2 clinics/week and not more than 7 clinics/week. Further, the clinical exposure of the multi-options rotations should be merged with workshops activities to link the learned skills from the workshops with the clinical practice.

### On-call duties

On-call duties have a crucial educational impact on residents’ professional growth since they enhance collaboration skills with other specialties and polish the skills in dealing with urgent and emergency cases. Thus, on-call duties are mandatory in the FM curriculum. Therefore, FM residents are required to join clinical rotations with an assigned team and fulfill the duties as a full-time junior resident from the same specialty. Residents are expected to attend the clinic and cover the on-call duties per the Saudi commission rules and regulations.

During the third year of residency, the adult ER rotation can be merged with FM III, and at least 18 ER shifts should be completed per the rotation requirements. During the FM modules, the FM program can assign the resident to cover the FM clinic any time (day or night) if there is clinical supervision. Furthermore, the resident could cover 2 ER (urgent care clinics) shifts/month per the program request and decision. The clinical rotations are described in detail below.
Family Medicine Rotation

Activities description:

FM rotations extended over the three-year span of the training curriculum are the core rotations in which the residents are exposed, learn, and apply most of the principles, knowledge, and skills related to FM. The following section will describe the overall outcomes required by the specialty—a further and detailed section that describes the appropriate milestones required annually will be released in 2020. The FM rotations are intended to provide FM residents with exposure to common FM-related conditions (i.e., emergencies, acute, and chronic) in the community, and to be involved in decision-making processes regarding assessment, diagnosis, and management of patients with health problems.

Activities types:

The following are the activity types that the residents are expected to cover during the FM rotations

1. **FM clinics**: Four hours of supervised, general FM clinic.

2. **Specialized services**: Four hours of supervised, specialized services including well-baby clinic, antenatal care clinic, chronic diseases clinic, home care, mental health clinic, health promotion and disease prevention clinic, etc.).

3. **Urgent Care Services**: Eight hours of supervised duty at an urgent care unit or emergency department (ED).

Specific rules

In the FM rotations, the FM residents must:

- Rotate in all FM units in the FM center (FMC) or other relevant departments based on department structure (e.g., ANC at obstetrics department if the service is not actually established at the FMC)

- Complete at least 7 clinical sessions per week.

- Participate actively in the FMC’s academic activities including morning meetings, interdepartmental meetings, and tutorials.

- Attend FM program WADA, which includes a weekly full-day release.
Competencies

By the end of rotations, the resident shall be able to:

1. Demonstrates medical knowledge of sufficient breadth and depth to practice FM.
2. Explains the indications, contraindications, effectiveness and side effects of common conservative, pharmacological, and invasive interventions in PHC setting.
3. Applies critical thinking and decision-making skills in the patient/individual clinical encounters.
4. Integrates relevant basic, clinical, and evidence-based information in the care of patients, family, and community based on the best available information and resources.
5. Provides preventive care to individuals and their families and promotes a healthy lifestyle including; exercise, healthy diet, and avoidance of hazardous substances and behaviors.
6. Arranges and delivers immunization and pharmacological interventions to targeted populations, including; specific interventions, seasonal campaigns, Hajj, school wellness programs and traveling abroad.
7. Applies appropriate protocols for notification, isolation and handling cases with flagged or unidentified infectious diseases and participate in diseases surveillance to minimize risks of an outbreak.
8. Applies appropriate protocols to minimize microbial resistance to antibiotics in the community by utilizing health education, counseling, conscious antibiotics prescription and managing antibiotic resistant cases.
9. Provides premarital care to “would be” married couples through counseling, family planning, and screening for genetic and infectious diseases according to the national health system.
10. Provides comprehensive preconception, and antenatal and postpartum care through well-structured system of screening, assessment, managing, and monitoring.
11. Promotes child wellbeing through well-structured care including health counseling, screening, immunization, and monitoring.
12. Manages common acute medical problems through comprehensive “biopsychosocial” care.
13. Participates effectively in rapid response systems to facilitate better clinical outcomes and proper utilization of resources.
14. Manages chronic illnesses through well-structured, continuous and evidence based healthcare to control symptoms, and prevent complications, and improve quality of life.
15. Coordinates comprehensive and patient-centered multidisciplinary care for patients with chronic illnesses, according to patients’ needs and conditions.
16. Provides outreach care to patients with chronic illnesses at home, and assists caregivers with necessary information and skills to improve patients’ quality of care.
17. Identifies and assesses patients in need of elective interventions, and provides necessary information regarding indicated procedures including preparation, hospital stay, risk of complications, and prognosis.
19. Provides post-procedural care to assess improvement and monitor complications.
20. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the FM department.

21. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.

22. Provides cost-conscious medical care to optimize resources utilization.

23. Assesses, improves and monitors quality of care delivered to patients and their families.

24. Applies patient safety principles and measures to minimize the incidence and impact of, and maximizes recovery from, adverse events.

25. Advocates for individuals, families, and community health according to their health needs and priorities, based on the principles of the community oriented primary care model.

26. Manages conflicts in the workplace effectively and professionally, whether they are personal conflicts, conflicts with patients and their families, or conflicts within the healthcare team.

27. Adheres to ethical principles derived from the profession, Islamic faith and culture, and humanism values.

28. Recognizes and adheres to rules and regulations organizing the health care practices in the kingdom.

29. Develops and maintains professional conduct and a sense of accountability.

30. Demonstrates a commitment to physician health and well-being.


32. Contributes effectively in educating individuals and community, including patients, students, residents, and other healthcare professionals.

33. Integrates best-available evidence into practice considering context, epidemiology of the disease, comorbidity, and the complexity of patients.
Residents should master the necessary clinical information for physiological and supportive preventive and promotive, and for common, acute, and chronic conditions.

**Basic knowledge**
- Demonstrates a thorough understanding of relevant basic sciences, including anatomy, physiology, pathophysiology, drug therapy, and the microbial basis of diseases of the key presenting problems and diseases.
- Understands the basic pharmacology and management of essential medications.

**Common acute and chronic presentation**
- Allergic rhinitis
- Anemia
- Anxiety
- Arthritis
- Asthma
- Back pain
- Bronchitis
- Bursitis
- Cancer
- Cholecystitis
- Common Benign and malignant Skin Lesions
- Common Rashes/Viral Exanthems
- Constipation/diarrhea
- Costochondritis
- CVA and TIA
- Cystitis
- Depression
- Dermatitis
- Dizziness
- DM
- Bell’s palsy
- Dyslipidemia
- Eczema
- Epistaxis
- Emphysema/COPD
- Enuresis
- Esophagitis/gastritis
- Fractures
- Gastroenteritis/dehydration
- Gout
- Headache
- Heart failure
- Hypo/hyperglycemia
- Hyperthyroidism/ hyperthyroidism
- Infertility
- Intestinal obstruction
- Irritable Bowel syndrome
- Menopausal syndromes
- Menstrual disorders
- Metabolic syndrome
- Ischemic heart diseases
- Neck pain
- Obesity
- Osteoarthritis
- Vaginal/cervical infection
- Upper respiratory tract infections
- Otitis media
- Polycystic ovarian syndrome
- Peptic Ulcer Disease
- Pharyngitis/Sore Throat
- Pelvic inflammatory disease
- Pneumonia
- Prostatitis
- Pyelonephritis
- Shoulder pain
- Sinusitis
- Sprains/strains
- Sexually transmitted illnesses
- Urethritis
- Urinary incontinence
- Smoking cessation
- Weight Management/Exercise
- Well-adult Assessment
- Well-child Assessment
- Women’s Health Assessment
- Medication compliance Issues
- Smoking cessation
- Weight Management/Exercise
- Well-adult Assessment
- Well-child Assessment
- Women’s Health Assessment
- Medication compliance Issues
- Life style and diet counseling

**Prevention and promotion**
- Child abuse
- Domestic violence
- Routine and catch-up vaccination
- School/Sports/Occupational Physical Assessment
- Senior abuse
- Sexual violence
- Adult immunizations
- Referral and consultation
- Tobacco, Alcohol, Prescription, and Illicit Drugs
- Smoking cessation
- Weight Management/Exercise
- Well-adult Assessment
- Well-child Assessment
- Women’s Health Assessment
- Medication compliance Issues
- Life style and diet counseling

**Knowledge**
Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for patients attending the FM center.

- **Blood**: (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb’s test)
- **Microbiology**: (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV, brucellosis, malaria, lishmaniasis, infestations)
- **ECG**: (12 leads ECG, stress test, treadmill testing, ambulatory ECG)
- **Biochemistry**: (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, ferritin, vitamin B12, folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-feto protein)
- **Tumor markers**
- **Serology**: (rheumatoid factors, ANA, anti-microsomial Abs, anti-thyroglobulin Abs)
- **Hormones essays**: (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- **Radiology**: (x-rays of chest, abdomen, KUP, and musculoskeletal, US abdomen, and Doppler US, Fluoroscopy, CT brain, abdomen, and musculoskeletal, MRI brain, spine and joints)
- **Others**: (spirometry, EEG, EMG, echocardiography, nuclear cardiology)

**Skills**

Residents should be able to perform the following clinical assessments for adult and adolescent patients:

**Full clinical history taking including:**
- History of present illness
- Systematic review
- Past medical and surgical history
- Family history
- Psychosocial history (including ICEE)

**Drug and food allergy**
- Behavioral history

**Full physical examination including:**
- Assess airway, breathing and circulation
- General examination and vital signs
- Head and neck examination

**Chest examination**
- Abdomen and pelvis examination
- Musculoskeletal examination
- Neurological examination
- Foot examination

Residents should be able to perform the following procedures for adult and adolescent patients:

- Anoscope/proctoscopy
- Antenatal ultrasound
- Anterior nasal packing
- Application of sling upper extremity
- Application of eye patch
- Bag-and-mask ventilation
- Cardiac defibrillation
- Digital block in finger or toe
- Drainage acute paronychia
- Dressing and wound care
- Electrocautery of skin lesions
- Incision and drainage of superficial abscesses
- Infiltration of local anesthesia
- Insertion of an intrauterine device
- Intradermal injection
- Intramuscular injection
- Nasogastric tube insertion
- Normal vaginal delivery
- Oral airway insertion
- Partial toenail removal
- Peripheral intravenous line (adult and child)
- Release subungual hematoma
- Removal of cerumen
- Removal of a foreign body in the eyes, ears, nose, and skin
- Skin closure techniques (suturing and non-suturing techniques)
- Skin scraping for fungus determination
- Slit lamp examination
- Subcutaneous injection
- Pare skin callus
- Use of Wood’s lamp
- Venipuncture
- Wound debridement
- Pap smear
- Placement of the transurethral catheter
Residents are advised to perform the following procedures for adult and adolescent patients:

- Adult lumbar puncture
- Ulnar gutter splint
- Aspirate breast cyst
- Aspiration and injection of bursae, e.g., patellar, or subacromial
- Joint aspiration and injection, shoulder joint
- Biopsy of skin lesions (Punch biopsy, Shave biopsy, or excisional biopsies)
- Cautery for anterior epistaxis
- Wedge excision for an ingrown toenail
- Cryotherapy of skin lesions
- Cryotherapy or chemical therapy genital warts
- Episiotomy and repair
- Excision of dermal lesions, e.g., papilloma
- Fine-needle Aspiration
- Injection of lateral epicondyle (tennis elbow)
- Splinting of injured extremities
- Diaphragm fitting and insertion
- Incise and drain thrombosed external hemorrhoid
- Subcuticular mattress, and layered closures; and subcuticular suturing
- Removal of nevus, or cyst
- Central venous access
- Reduce dislocated radial head (pulled elbow)
- Reduce dislocated shoulder
- Reduction of the dislocated finger
- Scraping and microscopic examination
- Endometrial aspiration biopsy
- Endotracheal intubation
Internal Medicine Rotation

Activities description:

Internal medicine rotations are intended to provide FM residents with exposure to common medical conditions (emergencies, acute, and chronic) in the community, and to be involved in decision-making processes regarding assessment, diagnosis, and management of patients with medical conditions.

Activity types:

The following are the activity types that the residents are expected to cover during the IM rotations

1. **Outpatient clinics**: Four hours of supervised, general IM clinic.
2. **Inpatient services**: Eight hours of supervised, house officer duties for inpatients.
3. **On-call services**: Twenty-four hours of supervised on-call duties in the ED (including weekends).

Specific rules

In the Internal Medicine rotation, the FM residents must:

- Rotate in general medical units, or major sub-specialties in medicine (including; cardiology, pulmonary, GI and hepatobiliary, metabolic and endocrinology, neurology, infectious, and rheumatology) based on department structure.
- Have at least two free weekends every four weeks.
- Not exceed five on-call instances monthly.
- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.
- Attend FM program WADA, which include a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Understands the basic anatomy, pathophysiology and clinical features of common medical conditions.
2. Explains the indications, contraindications, effectiveness and side effects of common medical interventions.
3. Integrates relevant basic, clinical, and evidence-based information in the care of patients with medical conditions.

4. Applies disease prevention and health promotion principles to patients at IM.
5. Modifies management plans of common medical conditions during pregnancy and lactation to prevent maternal and fetal complications.
7. Provides urgent basic life support interventions for medical emergencies and participates effectively in rapid response systems to facilitate better clinical outcomes and proper utilization of resources.
8. Performs essential medical procedures (diagnostic and therapeutic) to manage acute problems (see skills)
9. Manages chronic medical illnesses through well-structured, continuous and evidence-based health care to control symptoms, prevent complications and improve quality of life.
10. Coordinates comprehensive and patient-centered multidisciplinary care for patients with chronic medical illnesses, per patients’ needs and conditions.

11. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the medical department.
12. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.

13. Applies patient safety principles and measures during the assessment and management of patients with medical illnesses.

14. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in medical fields (e.g., informed consent and decision, DNR, and healthcare proxy).
15. Develops and maintains professional conduct and a sense of accountability.

16. Demonstrates commitment to lifelong learning principles by participating in internal medicine department educational activities.
17. Participates in EBM activities including high-quality journal clubs focusing on current medical updates.
Residents **should** master the necessary clinical information for **approaching the following clinical presentations** in adult and adolescent patients

<table>
<thead>
<tr>
<th>Presentations</th>
<th>Presentations</th>
<th>Presentations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest pain</td>
<td>Jaundice</td>
<td>Weight and appetite changes</td>
</tr>
<tr>
<td>Dizziness and syncope</td>
<td>Nausea and vomiting</td>
<td>Headache</td>
</tr>
<tr>
<td>Palpitation</td>
<td>Polyuria</td>
<td>Faints and fits</td>
</tr>
<tr>
<td>Claudication</td>
<td>Dysuria</td>
<td>Disturbed sensation and motor function</td>
</tr>
<tr>
<td>Fatigue</td>
<td>Proteinuria</td>
<td>Tremor</td>
</tr>
<tr>
<td>Shortness of breath</td>
<td>Hematuria</td>
<td>Fever</td>
</tr>
<tr>
<td>Cough</td>
<td>Urinary incontinence</td>
<td>Loss of consciousness</td>
</tr>
<tr>
<td>Wheeze</td>
<td>Urethral discharge</td>
<td></td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>Interstitial edema</td>
<td></td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>Musculoskeletal pain (Joint, Back and limb pain)</td>
<td></td>
</tr>
<tr>
<td>Bowel movements irregularity</td>
<td></td>
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</tr>
</tbody>
</table>

Residents **should** master the necessary clinical information for **managing the following chronic conditions** in adult and adolescent patients

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Conditions</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronary heart diseases</td>
<td>Dyslipidemia</td>
<td>Dementia</td>
</tr>
<tr>
<td>Hypertension</td>
<td>Metabolic syndrome</td>
<td>Pain syndromes</td>
</tr>
<tr>
<td>Heart failure</td>
<td>Osteoporosis</td>
<td>Anemia</td>
</tr>
<tr>
<td>Arrhythmias</td>
<td>Peptic ulcer diseases</td>
<td>Thrombocytopenia</td>
</tr>
<tr>
<td>DVT and PE</td>
<td>GERD</td>
<td>Bleeding disorders</td>
</tr>
<tr>
<td>Asthma</td>
<td>Irritable bowel syndrome</td>
<td>Chronic renal failure and nephropathies</td>
</tr>
<tr>
<td>COPD</td>
<td>Chronic liver diseases</td>
<td>Osteoarthritis</td>
</tr>
<tr>
<td>Sleep apnea</td>
<td>Hepatitis</td>
<td>Rheumatoid arthritis</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>Epilepsy</td>
<td>Geriatric medical problems</td>
</tr>
<tr>
<td>Thyroid disorders</td>
<td>CVA/ TIA</td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td>Headache</td>
<td></td>
</tr>
</tbody>
</table>

Residents **should** master the necessary clinical information for **managing the following acute conditions** in adult and adolescent patients

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Conditions</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic and advanced life support</td>
<td>Hypertensive urgencies and emergencies</td>
<td>Acute renal failure</td>
</tr>
<tr>
<td>Shock</td>
<td>Diabetes emergencies (DKA, hyperosmolar and hypoglycemia)</td>
<td>Status epilepticus</td>
</tr>
<tr>
<td>Anaphylaxis</td>
<td>Thyroid emergencies (thyrotoxic storm, and myxedema)</td>
<td>Meningitis and encephalitis</td>
</tr>
<tr>
<td>GI bleeding</td>
<td></td>
<td>Poisoning and overdoses</td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td></td>
<td>Scalds and burns</td>
</tr>
<tr>
<td>Asthma acute exacerbations and status asthmaticus</td>
<td></td>
<td>Acid base, fluid, and electrolytes regulation and management</td>
</tr>
</tbody>
</table>
Residents **should** master the necessary clinical information for **managing the following infectious conditions** in adult and adolescent patients:

- Lung infection and infestation (pneumonia, TB, parasite)
- Urinary tract infections
- GIT infections
- Septic arthritis
- Sexually transmitted infections
- Viral hepatitis
- Brucellosis
- Malaria
- Giardiasis and amebiasis
- Food poisoning

Residents are **advised** to master the necessary clinical information for **managing the following medical conditions** in adult and adolescent patients:

**Basic knowledge:**
- Normal anatomy and physiology of human body.
- Basic microbiology, pharmacology and pathology of common medical conditions.

**Cardiovascular diseases**
- Pulmonary heart diseases
- Valvular heart diseases
- Congenital heart diseases
- Peripheral vascular diseases
- Cardiomyopathies
- Pericardial diseases
- Infection related heart diseases
- DVT

**Pulmonary diseases**
- Pulmonary fibrosis
- Lung cancer
- Acute respiratory distress syndrome
- Interstitial lung diseases
- Pulmonary hypertension
- Emphysema
- Bronchiectasis
- Occupational lung diseases

**Metabolic and endocrine diseases**
- Pituitary disorders
- Adrenal disorders
- Parathyroid disorders
- Sex hormone disorders

**Nutrition**
- Malnutrition
- Vitamins and minerals disorders

**Rheumatic diseases**
- Systemic lupus erythematosus
- Rheumatoid arthritis
- Scleroderma
- Polymyalgia rheumatica
- Vasculitis

**Gastrointestinal diseases**
- Esophageal disorders
- Liver cirrhosis
- Gastric cancer
- Colon cancer
- Inflammatory bowel diseases
- Coeliac disease
- Liver tumors

**Neurologic disorders**
- Delirium
- Paresthesia
- Nerve palsies
- Tremors and motor disorders
- Fibromyalgia and chronic fatigue syndrome
- Peripheral neuropathy
- Multiple sclerosis
- Neurolgia
- Sleep disorders
- Muscular dystrophy
- Polymyositis and dermatomyositis
- Guillain-Barré
- Myasthenia gravis

**Oncology and Hematologic diseases**
- Lymphoma and leukemia
- Myeloproliferative disorders
- Blood transfusion, matching

**Renal diseases**
- Glomerulonephritis
- Nephrotic syndrome
- Hemolytic uremic syndrome
- Interstitial nephritis
- Renal cell carcinoma

**Infectious diseases**
- HIV/AIDS
- Hemorrhagic viral infections
- Leishmaniasis
- Helminthic diseases

**Adverse drug reaction and poisoning**
- Household and industrial poisoning
- Venomous animals and plants
- Drug abuse

**Allergic and immunologic disorders**
- Immunodeficiency disorders

**Miscellaneous topics**
- Evaluation of cardiac patient for non-cardiac surgery
- Antibiotic prophylaxis for valvular disease
- Pathogenesis of the IgE-mediated allergic reaction
- Drug reactions
- Dietary requirements
- Food allergies and food intolerance
- Factors and types of adverse drug reaction and their management
Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for patients with medical conditions:

- Blood (CBC, cytology, peripheral blood smear, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb’s test)
- Microbiology (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV, brucellosis, malaria, Lishmaniasis, infestations)
- ECG (12 leads ECG, stress test, treadmill testing, ambulatory ECG)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, UIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-feto protein)
- Tumor markers
- Serology (rheumatoid factors, ANA, anti-microsomial Abs, anti-thyroglobulin Abs)
- ECG readings
- Hormones essays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Radiology (x-rays of chest, abdomen, KUB, and musculoskeletal. US abdomen, and Doppler US. fluoroscopy. CT brain, abdomen, and musculoskeletal. MRI brain, spine and joints)
- Others (spirometry, EEG, EMG, echocardiography, nuclear cardiology.

Skills

Residents should be able to perform the following clinical assessments for adult and adolescent patients:

- Full clinical history taking including:
  - History of present illness
  - Systematic review
  - Past medical and surgical history
  - Family history
  - Psychosocial history (including ICEE)
  - Drug and food allergy
  - Behavioral history

- Full physical examination including:
  - Assess airway, breathing and circulation
  - General examination and vital signs
  - Head and neck examination
  - Chest examination
  - Abdomen and pelvis examination
  - Musculoskeletal examination
  - Neurological examination
  - Foot examination

Residents should be able to perform the following clinical assessments for adult and adolescent patients:

- IV cannula insertion
- IV, IM, and SQ injections
- NGT
- Proctoscopy
- Folty’s catheter insertion and management
- CPR
- Central line insertion and management
- Tracheostomy tube management

Residents are advised to perform the following procedures for adult and adolescent patients:

- Endotracheal intubation
- Lumbar puncture
- Cardioversion
- Chest tube
- Arthrocentesis
- Paracentesis
- Pericardiocentesis
Pediatric Rotation

Activities description:

The pediatric rotation is intended to provide FM residents with exposure to common acute and chronic pediatric conditions, and to be involved in decision-making processes regarding assessment, diagnosis, and management of pediatric patients.

Activity types:

The following are the activity types that the residents are expected to cover during the PED rotations:

1. **Outpatient clinics**: Four hours of supervised, general PED clinic.
2. **Inpatient services**: Eight hours of supervised, house officer duties for inpatients.
3. **On-call services**: Twenty-four hours of supervised on-call duties in the ED (including weekends).

Specific rules

In the pediatric rotation, the FM residents must:

- Rotate in general pediatric units, or major sub-specialties including cardiology, pulmonary, GIT and hepatobiliary, neurology, endocrinology, infectious, and hematology, and allergy clinics based on department structure.
- Have at least two free weekends every four weeks.
- Not exceed five on-call instances monthly.
- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.
- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Discusses the physiological milestones of physical growth and mental development among pediatric age group.
2. Understands the basic anatomy, pathophysiology and clinical features of common pediatric conditions.
3. Explains the indications, contraindications, effectiveness, and side effects of common pediatric interventions.
4. Integrates relevant basic, clinical, and evidence-based information in the care of pediatric patients.
5. Applies diseases prevention and health promotion principles to pediatric patients including national immunization and screening programs.
6. Provides parents with anticipatory advice on relevant issues (e.g., feeding patterns, development, immunizations, dental care, parenting tips, antipyretic dosing, and child safety).
7. Generates management plans for common newborn conditions related to complications that occur during pregnancy, delivery, and infancy.
8. Manages common acute pediatric problems through comprehensive “biopsychosocial” care.
9. Provides urgent basic life support interventions for pediatric emergencies and participates effectively in rapid response systems to facilitate better clinical outcomes and proper utilization of resources.
10. Performs essential pediatric procedures (diagnostic and therapeutic) to manage acute problems.
11. Manages chronic pediatric illnesses through well-structured, continuous and evidence-based health care to control symptoms, prevent complications and improve quality of life.
12. Coordinates comprehensive and patient-centered multidisciplinary care for patients with chronic pediatric illnesses, according to patients’ needs and conditions.
13. Demonstrates the ability to communicate and collaborate with patients, families, and healthcare team in the pediatric department.
14. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports and discharge summaries, and to utilize technology to enhance communications.
15. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in medical fields (e.g., informed consent and decision, DNR, and healthcare proxy).
16. Develop and maintains professional conduct and a sense of accountability.
17. Demonstrate commitment to lifelong learning principles by participating in pediatric department educational activities.
18. Participate in EBM activities including high-quality journal clubs focusing on current medical updates.
Residents **should** master the necessary clinical information for **approaching the following clinical presentations** in pediatric patients

- Care of the newborn
- Pediatric immunization
- Pediatric screening
- Failure to thrive
- Dehydration
- Developmental delay
- Shortness of breath
- Cough
- Stridor
- Wheeze
- Bowel movements irregularity
- Jaundice
- Nausea and vomiting
- Dysuria
- Proteinuria
- Hematuria
- Enuresis
- Interstitial edema
- Musculoskeletal pain (joint, back, and limb pain)
- Limping child
- Abdominal pain
- Weight and appetite changes
- Headache
- Faints and fits
- Disturbed sensation and motor function
- Fever
- Loss of consciousness
- Skin rash
- Lower extremity abnormalities e.g., in toeing

Residents **should** master the necessary clinical information for **managing the following chronic conditions** in pediatric patients

- Food allergies
- Asthma
- Celiac disease
- Urticaria
- Hypertension
- Heart failure
- Diabetes mellitus
- Thyroid disorders
- Obesity
- Osteomalacia and rickets
- Hepatitis
- Epilepsy
- Headache
- Febrile seizures
- Juvenile rheumatoid arthritis
- Pain syndromes
- Anemia
- Thrombocytopenia and bleeding disorders

Residents **should** master the necessary clinical information for **managing the following emergency conditions** in pediatric patients

- Basic and advanced life support
- Shock
- Anaphylaxis
- GI bleeding
- Intestinal obstruction
- Croup
- Acute epiglottitis
- Bronchiolitis
- Asthma acute exacerbations and status asthmaticus
- Epistaxis
- Hypertensive urgencies and emergencies
- Diabetes emergencies (DKA and hypoglycemia)
- Thyroid emergencies (thyrotoxic storm and myxedema)
- Foreign body aspiration/ingestion
- Child abuse
- Acute testicular torsion
- Bell's palsy
- Acute renal failure
- Status epilepticus
- Meningitis and encephalitis
- Poisoning and overdoses
- Scalds and burns
- Acid base, fluid and electrolytes regulation and management
Residents should master the necessary clinical information for managing the following infectious conditions in pediatric patients:

- Otitis media and externa
- Sinusitis
- Upper respiratory tract infections
- Pneumonia
- Urinary tract infections
- GIT infections
- Food poisoning
- Septic arthritis
- Osteomyelitis
- Pertussis
- Skin infections
- Meningitis and encephalitis
- Viral hepatitis
- Eye infections
- Rheumatic fever
- Viral exanthems

Residents are advised to master the necessary clinical information for managing the following pediatric conditions:

**Basic knowledge:**
- Normal anatomy and physiology of human body
- Basic microbiology, pharmacology, and pathology of common pediatric conditions

**Cardiovascular diseases**
- Arrhythmias
- Congenital heart diseases
- Coarctation of the aorta

**Pulmonary diseases**
- Respiratory distress syndrome
- Hyaline membrane disease
- Cystic fibrosis

**Endocrine diseases**
- Cretinism
- Cushing’s syndrome
- Addison’s disease

**Renal diseases**
- Glomerulonephritis
- Nephrotic syndrome
- Hemolytic uremic syndrome

**Rheumatic diseases**
- Legg-Calve-Perthes disease
- Congenital hip dysplasia
- Osgood-Schlatter disease
- Talipes equinovarus (club foot)

**Gastrointestinal diseases**
- Appendicitis
- Intussusception
- Volvulus
- Necrotizing enterocolitis
- Malabsorption
- Pyloric stenosis

**Neurologic disorders**
- Cerebral palsy
- Spina bifida
- Meningomyelocele
- Hydrocephalus
- V-P shunt malformation

**Dermatological diseases**
- Viral exanthems
- Molluscum contagiosum
- Pityriasis rosea
- Acne
- Tinea infections
- Impetigo
- Erysipelas
- Scabies
- Ringworm
- Pediculosis
- Alopecia areata

**Genetic diseases**
- Trisomy 21
- Klinefelter’s syndrome
- Sickle cell trait and disease
- Bleeding dyscrasias
- Turner’s syndrome

**Adverse drug reaction and poisoning**
- Household and industrial poisoning
- Venomous animals and plants

**Oncology and Hematologic diseases**
- Lymphoma and leukemia
- Myeloproliferative disorders
- Leukemia
- Multiple myeloma
- Ewing’s sarcoma
- Retinoblastoma
- Neuroblastoma
- Wilm’s tumor

**Others**
- Learning disabilities
- Principles of school Health
Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for pediatric patients:

- Blood (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb’s test)
- Microbiology (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV)
- ECG (12 leads ECG)
- Others (spirometry, EEG, EMG, echocardiography)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-fetoprotein)
- Serology (rheumatoid factors, ANA, anti-microsomial Abs, anti-thyroglobulin Abs)
- Hormones essays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Radiology (x-rays of chest, abdomen, KUB, and musculoskeletal. US abdomen, and Doppler US. fluoroscopy. CT brain, abdomen, and musculoskeletal. MRI brain, spine and joints)

Residents should be able to perform the following clinical assessment for pediatric patients:

- Full clinical history taking including:
  - History of present illness
  - Systematic review
  - Past medical and surgical history
  - Pregnancy and delivery history
  - Family history
- Psychosocial history including (ICEE)
- Drug and food allergy
- Behavioral history
- Full physical examination including:
  - Assess airway, breathing and circulation
  - General examination
  - Vital signs
  - Growth and development
  - Head and neck examination
  - Chest examination
  - Abdomen and pelvis examination
  - Musculoskeletal examination
  - Neurological examination

Residents should be able to perform the following procedures for pediatric patients:

- IV cannula insertion
- IV, IM and SQ injections
- NGT
- Peak flow measurement
- Inhaler techniques.
- Oxygen administration.
- Foreign body removal from ears, nose, and skin.
- Glasgow coma scale
- Folly’s catheter insertion and management
- Wound debridement
- Central line insertion and management
- Tracheostomy tube management

Residents are advised to perform the following procedures for pediatric patients:

- Endotracheal Intubation
- Pneumatic otoscopy and tympanograms.
- Swabs for culture
- Chest tube
- Cardioversion
- Arthrocentesis
- The rapid strep test
- Paracentesis
- Pericardiocentesis
- Lumbar puncture
Obstetrics and Gynecology Rotation

**Activities description:**

The OB/GYN rotation is intended to provide FM residents with exposure to common acute and chronic OG conditions, and to be involved in decision-making processes regarding assessment, diagnosis, and management of patients with OG problems.

**Activities Types:**

The following are the activities types that the residents expected to cover during the OG rotations

1. **Outpatient clinics:** Four hours supervised general OG clinic.
2. **Inpatient services:** Eight hours of supervised house officer duties for inpatients.
3. **Labour and delivery:** Eight hours of supervised duties for women in labour.
4. **On-call services:** Twenty-four hours of supervised, on-call duties in the ED (including weekends).

**Specific rules**

In the OG rotation, the FM residents must:

- Rotate in general OB/GYN units, or major sub-specialties including gynecologic oncology, maternal fetal medicine, reproductive endocrinology, and infertility, and urogynecology based on department structure.
- Have at least two free weekends every four weeks.
- Not exceed five on-call instances monthly.
- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.
- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
### Competencies

By the end of rotations, the resident shall be able to:

<table>
<thead>
<tr>
<th>Competency</th>
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</thead>
<tbody>
<tr>
<td>1. Describes basic aspects of anatomy and pathophysiology of women’s reproductive system.</td>
</tr>
<tr>
<td>2. Describes the common clinical presentation of pregnancy and gynecological disease.</td>
</tr>
<tr>
<td>3. Explains the indications, contraindications, effectiveness and side effects of different methods of contraception and gynecological procedures.</td>
</tr>
<tr>
<td>4. Integrates relevant basic, clinical, and evidence-based information in the care of women who are pregnant or have a gynecological disease.</td>
</tr>
<tr>
<td>5. Promotes a healthy lifestyle that prevents disease or complication during pregnancy and in women’s lives.</td>
</tr>
<tr>
<td>6. Applies premarital, pre-conceptional, and antenatal counseling and screening.</td>
</tr>
<tr>
<td>7. Manages common clinical presentation for pregnant women and newborns.</td>
</tr>
<tr>
<td>8. Manages common acute obstetric and gynecological problems in FM setting by providing needed management according to the recent guidelines.</td>
</tr>
<tr>
<td>9. Manages safe delivery of newborns by care coordination and provide aid in special situations.</td>
</tr>
<tr>
<td>10. Manages common chronic gynecological conditions by providing integrated and coordinated care.</td>
</tr>
<tr>
<td>11. Demonstrates the ability to communicate and collaborate with patients, families, and healthcare team in the OB/GYN department.</td>
</tr>
<tr>
<td>12. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.</td>
</tr>
<tr>
<td>13. Applies patient safety principles and measures during the assessment and management of OB/GYN patients.</td>
</tr>
<tr>
<td>15. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in medical fields (e.g., Informed consent and decision, DNR, and healthcare proxy).</td>
</tr>
<tr>
<td>16. Develops and maintains professional conduct and a sense of accountability.</td>
</tr>
<tr>
<td>17. Demonstrates commitment to lifelong learning principles by participating in OG department educational activities.</td>
</tr>
<tr>
<td>18. Participates in EBM activities including high quality journal clubs focusing on current medical updates.</td>
</tr>
</tbody>
</table>
Residents should master the necessary clinical information for approaching the following clinical presentations in OG patients:

### Menstruation
- Physiology of puberty, menarche, and menstrual cycles, including normal variations
- Abnormal menstruation
- Amenorrhea
- Abnormal uterine bleeding (ovulatory dysfunction, fibroids, polyps, coagulopathy)
- Postcoital bleeding
- Dysmenorrhea

### Antenatal care
- Physiological changes in pregnancy
- First trimester diagnosis of pregnancy
- Routine laboratory and radiology investigation in pregnancy
- Assessment and management of common symptoms in pregnancy like pelvic pain, back pain, nausea, vomiting, spotting
- Screening for diabetes, asymptomatic bacteriuria, iron deficiency anemia
- Differentiation and management of abnormal gestations (e.g., gestational trophoblastic disease, ectopic pregnancy)
- Assessment and management of abortions including: (threatened, incomplete, and complete, embryonic demise)
- Assessment and management of post-abortion symptoms and complications
- Assessment of immunization status
- Occupational hazards assessment
- Prenatal diet, exercise, weight, and traveling counseling
- Screening, counseling and management of psychosocial stressors of pregnancy

### Family planning and contraception
- Counseling for contraception for women in all reproductive age groups
- Permanent methods of contraception
- Reversible methods of contraception
- Emergency method of contraception

### Infertility
- Primary infertility
- Secondary infertility

### Common gynecological conditions
- Acute and chronic pelvic pain
- Vaginal discharge
- Vaginitis
- Menorrhagia
- Sexually transmitted disease
dyspareunia
- Ovarian cyst
- Ovarian torsion
- Poly cystic ovarian disease
- Endometrial hyperplasia
- Urine incontinence
cervical dysplasia screening
- Menopause

### Evaluation and management of complication of pregnancy such as:
- Preterm labor
- Intrauterine growth restriction (IUGR)
- Placental abruption
- Blood factor iso-immunization
- Intrahepatic cholestasis of pregnancy
- Polyhydramnios and oligohydramnios
- Hypertensive disorders of pregnancy, including essential hypertension, gestational hypertension, preeclampsia, and eclampsia

### Evaluation of medical complications during pregnancy, with appropriate consultation or referral to medical sub-specialist if needed which include:
- Bronchial Asthma
- Thyroid disease (hypothyroid and hyperthyroid)
- Preexisting hypertension or diabetes
- Understand the physiology of the three stages of labor and demonstrate effective management of all three stages
- Demonstrate understanding for the indication of Cesarean section

### Postpartum care
- Routine postpartum care
- Assessment and follow-up of any complication during pregnancy (e.g., GDM, preeclampsia, IUGR, preterm labor)
- Breastfeeding counseling
- Counseling regarding postpartum contraceptive options
- Screening for postpartum depression
- Assessment and management of Postpartum fever and endometritis, Pain associated with normal uterine involution
- Postpartum sexual relationships and family dynamics
- Counseling about pelvic floor muscle strengthen with exercise
Residents are advised to master the necessary clinical information for managing the following OG conditions.

### Benign and malignant neoplasms
- Fibroid
- Endometrial hyperplasia
- Postmenopausal vaginal bleeding
- Malignant uterine lesions
- Adnexal masses
- Ovarian masses

### Other gynecological conditions
- Pelvic organ prolapses
- Endometriosis
- Female sexual dysfunction
- Domestic abuse

### Menopause
- Complementary alternatives medicine in the management of postmenopausal symptoms

### Infertility
- Assisted reproductive technology

### Antenatal care
- Preconception genetic counseling
- Mal-presentation
- Trauma/deceleration injuries
- Indications for episiotomy
- Indications and risk assessments for induction of post-term pregnancy
- Maintain Neonatal Advanced Life Support (NRP/NALS) certification

Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for OG patients.

### Laboratory investigations
- Blood (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb’s test)
- Microbiology (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV)
- ECG (12 leads ECG)
- Others (CTG)

### Biochemistry
- Lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-fetoprotein

### Serology
- Rheumatoid factors, ANA, anti-microsomal Abs, anti-thyroglobulin Abs

### Hormones essays
- Cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests

### Radiology
- X-rays of chest, abdomen, KUB, and musculoskeletal, obstetric US, and Doppler US, fluoroscopy
Residents **should** be able to perform the following **clinical assessments** for OG patients

<table>
<thead>
<tr>
<th>Full clinical history taking including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• History of present illness</td>
</tr>
<tr>
<td>• Systematic review</td>
</tr>
<tr>
<td>• Past medical and surgical history</td>
</tr>
<tr>
<td>• Pregnancy and delivery history</td>
</tr>
<tr>
<td>• Family history/psychosocial history (including ICEE)</td>
</tr>
<tr>
<td>• Drug and food allergy</td>
</tr>
<tr>
<td>• Behavioral history</td>
</tr>
<tr>
<td><strong>Full physical examination including:</strong></td>
</tr>
<tr>
<td>• Assess airway, breathing and circulation</td>
</tr>
<tr>
<td>• General examination</td>
</tr>
<tr>
<td>• Vital signs</td>
</tr>
<tr>
<td>• Head and neck examination</td>
</tr>
<tr>
<td>• Chest and breast examination</td>
</tr>
<tr>
<td>• Abdomen and pelvis examination including obstetric examination</td>
</tr>
<tr>
<td>• Musculoskeletal examination</td>
</tr>
<tr>
<td>• Neurological examination</td>
</tr>
</tbody>
</table>

Residents **should** be able to perform the following **procedures** for OG patients

<table>
<thead>
<tr>
<th>Gynecology</th>
</tr>
</thead>
<tbody>
<tr>
<td>• IUD insertion and removal</td>
</tr>
<tr>
<td>• Implantable contraceptive insertion and removal</td>
</tr>
<tr>
<td>• Diaphragm fitting</td>
</tr>
<tr>
<td>• Speculum and bimanual examination</td>
</tr>
<tr>
<td>• Perform pap smear and vaginal swab</td>
</tr>
<tr>
<td><strong>Obstetric</strong></td>
</tr>
<tr>
<td>• Calculation of gestational age and expected date of delivery</td>
</tr>
<tr>
<td>• Performance and interpretation of non-stress tests and stress tests</td>
</tr>
<tr>
<td>• Management of labor with accurate assessment of cervical progress and fetal presentation and lie</td>
</tr>
<tr>
<td><strong>Spontaneous cephalic delivery</strong></td>
</tr>
<tr>
<td><strong>Calculation of ABGAR score</strong></td>
</tr>
</tbody>
</table>

Residents **are advised** to perform the following **procedures** for OG patients

<table>
<thead>
<tr>
<th>Gynecology</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Assisting with cesarean delivery</td>
</tr>
<tr>
<td>• Bartholin duct cyst management</td>
</tr>
<tr>
<td>• Colposcopy, cervical biopsy, and endo-cervical curettage</td>
</tr>
<tr>
<td>• Endometrial biopsy</td>
</tr>
<tr>
<td><strong>Obstetric</strong></td>
</tr>
<tr>
<td>• Limited obstetric ultrasound examination (fetal position, amniotic fluid index, placental location, cardiac activity)</td>
</tr>
<tr>
<td>• Induction and augmentation of labor, including artificial rupture of membrane</td>
</tr>
<tr>
<td><strong>Active management of the third stage of labor</strong></td>
</tr>
<tr>
<td><strong>Episiotomy and Repair of episiotomies and lacerations</strong></td>
</tr>
<tr>
<td><strong>Neonatal resuscitation</strong></td>
</tr>
<tr>
<td><strong>Vacuum extraction</strong></td>
</tr>
</tbody>
</table>
General Surgery Rotation

Activities description:

The GS rotation is intended to provide FM residents with exposure to common acute and chronic surgical conditions, and to be involved in decision-making processes regarding assessment, diagnosis, and management of patients in surgical departments.

Activity types:

The following are the activity types that the residents are expected to cover during the GS rotations

1. **Outpatient clinics**: Four hours of supervised, general GS clinic.

2. **Inpatient services**: Eight hours of supervised, house officer duties for inpatients.

3. **On-call services**: Twenty-four hours of supervised on-call duties in the ED (including weekends).

Specific rules

In the GS rotation, the FM residents must:

- Rotate in GS units, or major sub-specialties in GS including breast, colorectal, endocrine, upper and lower GI, urology, cardio-thoracic and vascular, minor surgery, based on department structure.

- Have at least two free weekends every four weeks.

- Not exceed five on-call instances monthly.

- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.

- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Understands the basic anatomy, pathophysiology, and clinical features of common conditions in general surgery.
2. Explains the indications, contraindications, effectiveness and side effects of common surgical interventions.
3. Integrate relevant basic, clinical, and evidence-based information in the care of surgical patients.

4. Promotes healthy lifestyle that prevent surgical diseases and preserve function
5. Applies periodic screening for surgical diseases such as breast cancer screening, colon cancer screening.
6. Manages common pathological manifestations of surgical diseases during pregnancy that may affect mother or her child
7. Manages common acute surgical problems through comprehensive “biopsychosocial” care.
8. Provides urgent basic life support interventions for surgical emergencies and participates effectively in rapid response systems to facilitate better clinical outcomes and proper utilization of resources.
9. Performs essential surgical procedures (diagnostic and therapeutic) to manage acute problems.
10. Manages common chronic surgical conditions by providing integrated and coordinated care
11. Coordinate elective surgical interventions and provide pre and post procedural counseling and care.

12. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the general surgery department.
13. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.

14. Applies patient safety principles and measures during the assessment and management of surgical patients.

15. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in medical fields (eg. Informed consent and decision, DNR, and healthcare proxy)
16. Develops and maintains professional conduct and a sense of accountability

17. Demonstrate commitment to lifelong learning principles by participating in general surgery department educational activities.
18. Participate in EBM activities including high-quality journal clubs focusing on current medical updates.
Residents **should** master the necessary clinical information for **approaching the following clinical presentations** in patients with surgical conditions:

- Abdominal pain
- Renal colic
- Groin pain
- Breast mass and discharge
- Abdominal mass
- Constipation
- Dysphagia
- Jaundice
- Nausea and vomiting
- GI bleeding
- Hematuria
- Incontinence
- Limb ischemia
- Wound infection
- Urinary retention
- Abscesses
- Burns
- Neck masses
- Trauma

Residents **should** master the necessary clinical information for **managing the following chronic surgical conditions**:

- PUD
- Gallbladder disease
- Benign prostatic hyperplasia
- Hemorrhoids
- Varicocele
- Bariatric surgery
- Diabetic foot
- Neurogenic bladder
- Impotence
- Varicose vein
- Kidney stones
- Pain syndromes
- Chronic sinuses and abscesses
- Anal fissure

Residents **should** master the necessary clinical information for **managing the following surgical emergency conditions**:

- Basic and advanced life support
- Trauma
- Shock
- GI bleeding
- Intestinal obstruction
- Acute appendicitis
- Acute cholecystitis
- Mesenteric ischemia
- Acute pancreatitis
- Incarcerated hernia
- Perforated viscus
- Foreign body aspiration
- Diverticulitis
- Flail chest
- Airway obstruction
- Pneumothorax and hemothorax
- Pleural effusion

Residents **should** master the necessary clinical information for **managing the following surgical emergency conditions**:

- Wound infection
- Cellulitis
- Sepsis
- Diabetic foot infection
- Necrotizing soft tissue infections
Residents should master the necessary clinical information for managing the following surgical emergency conditions:

- Blood (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb’s test)
- Hormones essays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-fetoprotein)
- Microbiology (culture and sensitivity)
- ECG (12 leads ECG)
- Uroflowmetry
- Radiology (x-rays of chest, abdomen, KUP, and musculoskeletal US abdomen, prostate and Doppler US, fluoroscopy, CT abdomen)

Residents are advised to master the necessary clinical information regarding the following surgical topics:

**Basic knowledge:**
- Normal anatomy and physiology of human body
- Basic microbiology pharmacology and pathology of common surgical conditions

**Preoperative care**
- Recognition of appropriate surgical candidates, alternatives, and timing of surgery
- Surgical risk assessment
- Co-morbid diseases
- Antibiotic prophylaxis
- Patient preparation (e.g., bowel, medication, schedule)

**Intraoperative care**
- Basic principles of asepsis and sterile technique
- Fluid management
- Blood requirements
- Temperature control
- Use of basic surgical instruments
- Principles of wound closure
- Choice of suture / wound closure materials

**Postoperative care**
- Patient mobilization
- Incentive spirometry
- Pain management
- Nutrition management / bowel function

**Complications**
- Fever evaluation and management
- Wound dehiscence and infection
- Urinary retention and/or infection
- Hemorrhage
- Shock
- Deep venous thrombosis (DVT) and pulmonary embolism
- Atelectasis/pneumonia
- Transfusion reaction
- Ileus
- Delirium
Residents **should** be able to perform the following **clinical assessment** for surgical patients:

<table>
<thead>
<tr>
<th>Full clinical history taking including:</th>
<th>Drug and food allergy</th>
<th>Head and neck examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>• History of present illness</td>
<td>• Behavioral history</td>
<td>• Chest examination</td>
</tr>
<tr>
<td>• Systematic review</td>
<td>• Past medical and surgical history</td>
<td>• Abdomen and pelvis examination</td>
</tr>
<tr>
<td>• Past medical and surgical history</td>
<td>• Family history</td>
<td>• Musculoskeletal examination</td>
</tr>
<tr>
<td>• Family history</td>
<td>• Psychosocial history (ICEE)</td>
<td>• Neurological examination</td>
</tr>
<tr>
<td>• Psychosocial history (ICEE)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Full physical examination including:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Assess airway, breathing and circulation</td>
<td>• General examination</td>
<td></td>
</tr>
<tr>
<td>• General examination</td>
<td>• Vital signs</td>
<td></td>
</tr>
<tr>
<td>• Vital signs</td>
<td></td>
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</tr>
</tbody>
</table>

Residents **should** be able to perform the following **surgical procedures**:

<table>
<thead>
<tr>
<th>Minor surgical techniques</th>
<th>Nail trephination to drain Hematoma</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>• IV Local anesthesia</td>
<td>• Nail removal</td>
<td>• IV cannula insertion</td>
</tr>
<tr>
<td>• Simple excision</td>
<td>• Drain acute paronychia</td>
<td>• IV, IM, and SQ injections</td>
</tr>
<tr>
<td>• Incision and drainage of abscesses</td>
<td>• Wound debridement</td>
<td>• NGT</td>
</tr>
<tr>
<td>• Aspiration of cysts</td>
<td>• Excision of external thrombotic hemorrhoid</td>
<td>• Glasgow coma scale</td>
</tr>
<tr>
<td>• Foreign body removal</td>
<td>• In grown toe nail</td>
<td>• Folly’s catheter insertion and management</td>
</tr>
<tr>
<td>• Cauterization</td>
<td>• Endotracheal Intubation</td>
<td>• Central line insertion and management</td>
</tr>
<tr>
<td>• Skin biopsy (punch, shave, excisional)</td>
<td>• Wound care</td>
<td>• Cricothyroidotomy</td>
</tr>
<tr>
<td>• Wound debridement</td>
<td>• Technique selection (ligature, staples, adhesives)</td>
<td>• Needle thoracostomy</td>
</tr>
<tr>
<td>• Excision of external thrombotic hemorrhoid</td>
<td>• Suture selection and removal</td>
<td>• Paracentesis</td>
</tr>
<tr>
<td>• In grown toe nail</td>
<td>• Drains application and removal</td>
<td>• Pericardiocentesis</td>
</tr>
<tr>
<td><strong>Wound care</strong></td>
<td>• Dressings application and removal</td>
<td>• Needle aspiration and biopsy technique</td>
</tr>
<tr>
<td>• Technique selection (ligature, staples, adhesives)</td>
<td>• Care of diabetic foot</td>
<td></td>
</tr>
<tr>
<td>• Suture selection and removal</td>
<td>• Burn care (1st and 2nd degrees)</td>
<td></td>
</tr>
<tr>
<td>• Drains application and removal</td>
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<tr>
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</tr>
<tr>
<td>• Burn care (1st and 2nd degrees)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Residents **are advised** to perform the following **procedures** for surgical patients:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Procedure</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Endotracheal Intubation</td>
<td>• Bladder aspiration</td>
<td>• Paracentesis</td>
</tr>
<tr>
<td>• Central venous access</td>
<td>• Arterial puncture catheterization</td>
<td>• Pericardiocentesis</td>
</tr>
<tr>
<td>• Venous cut down</td>
<td>• Cricothyroidotomy</td>
<td>• Needle aspiration and biopsy technique</td>
</tr>
<tr>
<td>• Nasogastric lavage</td>
<td>• Needle thoracostomy</td>
<td></td>
</tr>
<tr>
<td>• Chest tube</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skills
Psychiatry Rotation

**Activities description:**

The psychiatry rotation is intended to provide FM residents with exposure to common acute and chronic psychiatric conditions, and to be involved in decision-making processes regarding assessment, diagnosis, and management of psychiatric patients.

**Activity types:**

The following are the activity types that the residents are expected to cover during the PSY rotations

1. **Outpatient clinics:** Four hours of supervised, general PSY clinic.
2. **Inpatient services:** Eight hours of supervised, house officer duties for inpatients.
3. **On-call services:** Twenty-four hours of supervised on-call duties in the ED (including weekends).

**Specific rules**

In the psychiatry rotation, the FM residents must:

- Rotate in general psychiatric units, or major sub-specialties in psychiatry including acute care, mood disorders clinics, children and adolescents’ clinics, addiction clinics, and pain rehabilitation clinics, based on department structure.
- Have at least two free weekends every four weeks.
- Not exceed five on-call instances monthly.
- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.
- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Describes basic aspects of the pathophysiology of mental health illnesses
2. Describes the common clinical presentation and diagnostic criteria for psychiatric and behavioral illness
3. Explains the indications, contraindications, effectiveness, and side effects of different pharmacological and nonpharmacological interventions
4. Integrates relevant basic, clinical, and evidence-based information in the care of patient with psychiatric illness.

5. Promotes healthy lifestyle and stress management that prevent psychiatric illness
6. Applies screening for psychiatric diseases and substance abuse that may affect mental health for all gender with different age group
7. Manages common mental illness in pregnancy, during postpartum and among children
8. Manages common acute psychiatric illnesses and provide needed treatment and referrals.
9. Manages side effects of medications used in psychiatric illnesses
10. Manages common chronic psychiatric illnesses by providing integrated and coordinated care
11. Coordinates elective psychiatric therapeutic sessions and interventions, and provide pre and post session counseling and care.

12. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the psychiatry department.
13. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.

14. Applies patient safety principles and measures during the assessment and management of psychiatric patients.

15. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in medical fields (eg. Informed consent and decision, and health care proxy)
16. Explains the legal implications of diagnosing patients with psychiatric illness and substance abuse
17. Develops and maintains professional conduct and a sense of accountability.

17. Demonstrates commitment to lifelong learning principles by participating in psychiatry department educational activities.
18. Participates in EBM activities including high-quality journal clubs focusing on current medical updates.
Residents should master the necessary clinical information for managing the following chronic mental conditions:

**Depressive disorders**
- Major depressive disorder
- Dysthymia
- Premenstrual dysphoric disorder
- Depression secondary to medical problem
- Medication induced depression

**Anxiety disorders**
- Generalized anxiety disorder
- Panic attack
- Phobias (agoraphobia, specific phobia)
- Social anxiety disorder (social phobia)
- Separation anxiety disorder
- Obsessive compulsive disorder

**Substance-related and addictive disorders**
- Substance use disorder

**Trauma- and stressor-related disorders**
- Acute stress disorder
- Adjustment disorders
- Post-traumatic stress disorder

**Eating disorders**
- Anorexia nervosa
- Bulimia nervosa

**Neurodevelopmental disorders**
- Autism spectrum disorder
- Attention deficit/hyperactivity disorder (ADHD)

**Sleep-wake disorders**
- Insomnia disorder
- Hypersomnia disorder

**Neurocognitive disorders**
- Major neurocognitive disorder (dementia)
- Alzheimer disease
- Delirium

**Psychotic disorders and Schizophrenia**
- Schizophrenia
- Schizoaffective disorder
- Delusional disorder
- Psychotic disorder due to another medical condition
- Substance-/medication-induced psychotic disorder

**Bipolar and related disorders**
- Bipolar disorders (including hypomanic, manic, mixed, and depressed)

**Somatic symptom and related disorders**
- Conversion disorder
- Illness anxiety disorder

Residents should master the necessary clinical information for managing the following emergency conditions in psychiatric patients:

- Suicidal patient
- Psychotic disorders
- Major depressive disorder
- Alcohol withdrawal
- Bipolar mood disorder
- Substance use disorders
- Borderline personality disorder
- Homicidal patient
- Assaultive/aggressive patient

Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for psychiatric patients:

- Illicit drug and substances testing
- Electroencephalogram
- Brain CT and MRI
Residents are advised to master the necessary clinical information for managing the following psychiatric conditions.

**Basic knowledge:**
- Normal, abnormal, and variant psychosocial growth and development across the lifespan
- Interrelationships among biologic, psychologic, and social factors in all patients
- Reciprocal effects of acute and chronic illnesses on patients and their families
- Factors that influence adherence to a treatment plan
- Family functions and common interactional patterns in coping with stress
- Awareness of his or her own attitudes and values that influence effectiveness and satisfaction as a physician
- Stressors on physicians, and approaches to effective coping and wellness
- Ethical issues in medical practice, including informed consent, patient autonomy, confidentiality, and quality of life

**Familiarity with Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5)**

**Neurodevelopmental disorders**
- Tic disorder
- Intellectual disability (intellectual developmental disorder)
- Specific learning disorders
- Motor disorders
- Communication disorders

**Sleep-wake disorders**
- Breathing-related sleep disorders
- Circadian rhythm sleep disorder
- Restless leg syndrome
- Narcolepsy

**Neurocognitive disorders**
- frontotemporal lobar degeneration
- Lewy body disease
- vascular disease
- traumatic brain injury
- substance/medication use
- HIV infection
- Parkinson disease

**Psychotic disorders and Schizophrenia**
- Catatonia
- Brief psychotic disorder

**Anxiety disorders**
- Selective mutism

**Sexual dysfunctions**
- Sexual interest/arousal disorder
- Sexual pain disorders
- Sexual dysfunction related to a general medical condition

**Dissociative disorders**
- Dissociative identity disorder
- Disruptive, impulse-control, and conduct disorders
- Oppositional defiant disorder
- Conduct disorder
- Intermittent explosive disorder

**Personality disorders**
- Cluster A, B and C.

**Substance-related and addictive disorders**
- Trichotillomania
- Gambling disorder

**Huntington disease**

**Familiarity with Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5)**

**Neurodevelopmental disorders**
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- Intellectual disability (intellectual developmental disorder)
- Specific learning disorders
- Motor disorders
- Communication disorders

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**Sexual dysfunctions**
- Sexual interest/arousal disorder
- Sexual pain disorders
- Sexual dysfunction related to a general medical condition

**Dissociative disorders**
- Dissociative identity disorder
- Disruptive, impulse-control, and conduct disorders
- Oppositional defiant disorder
- Conduct disorder
- Intermittent explosive disorder
### Skills

**Residents should be able to perform the following clinical assessment for psychiatric patients**

- Full clinical history taking including:
  - History of present illness
  - Psychiatric review
  - Past psychiatric history
  - Family history
  - Social history
  - Drug and food allergy
  - Behavioral history
- Mental and neurological examination including:
  - General examination
  - Mini mental status exam
  - Neurological examination
  - Screen for anxiety using the GAD-6

**Screen for depression using the Patient Health Questionnaire (PHQ-9), and SIG-E-CAPS**

**Utilize ADHD and autism questionnaires for different settings**

**Residents should be able to perform the following techniques for psychiatric patients**

- Apply techniques to enhance compliance with medical treatment regimens
- Properly use psychopharmacologic agents, considering the diagnostic indications and contraindications, dosage; (length of use; monitoring of response, side effects, and compliance), and drug interactions
- Establish and use the connection in the physician-patient relationship as a tool to manage mental health disorders
- Utilize motivational interviewing to support behavioral and lifestyle changes (e.g., smoking cessation, obesity management, medication adherence)
- Assess the patients’ “Stage of Change”

**Assess the patients’ “Life Goal/What is Important”**

**Assess the patients’ “Confidence in Achievement”**

**Apply motivational interviewing techniques**
- Ask, tell/teach, ask
- Suggest
- Develop discrepancy between life goal and behavior
- Use patient-centered language
- Build efficacy

**Residents are advised to perform the following techniques for psychiatric patients**

- Teach patients methods for evaluating and selecting reliable web sites for medical information
- Manage emotional aspects of non-psychiatric disorders
- Teach and support stress management techniques (Breathing, Muscle relaxation, Imagery)
- Cognitive restructuring (cognitive behavioral therapy)
- Manage chronic pain
- Perform crisis counseling
- Complete safety assessment and plan
- Utilize community resources
- Practice patient-centered variations in treatment based on the patient’s personality, lifestyle, and family setting
- Identify and address drug and alcohol dependency and abuse
- Provide appropriate care of health disorders listed under psychopathology
- Refer appropriately to ensure continuity of care, provide optimal information sharing, and enhance patient compliance
### Emergency Medicine Rotations (Adult and Pediatric)

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>AEM, PEM</td>
<td>8 weeks AEM, 4 weeks PEM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Juniors and Seniors</td>
</tr>
</tbody>
</table>

#### Activities description:

The emergency rotation (Adult and pediatric) is intended to provide FM resident the opportunity to expose to common urgent and acute adult and pediatric conditions, and to be involved in decision making process regarding assessment, diagnosis and management of common emergency conditions.

#### Activity Types:

The following are the activity types that the residents are expected to cover during the AEM and PEM rotations

1. **Emergency Services:** Eight hours of supervised active duties in the ED (including weekends).

#### Specific rules

In the Emergency rotations, the FM residents must:

- Rotate in general emergency unit, or major sub-specialties in emergency including trauma, recovery and resuscitation units, adult ED, pediatric ED, toxicology, and addiction based on department structure.
- Have at least two free weekends every four weeks.
- Not exceed five on-call instances monthly.
- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.
- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Understands the basic anatomy, pathophysiology, and clinical features of common medical and surgical emergencies.
2. Explains the indications, contraindications, effectiveness, and side effects of common medical and surgical urgent interventions.
3. Integrates relevant basic, clinical, and evidence-based information in the care of patients with urgent conditions.

4. Applies diseases prevention and health promotion principles to patients attending ED.
5. Modifies management plan of common medical and surgical emergencies during pregnancy and lactation to prevent maternal and fetal complications.
6. Manages common acute health problems through comprehensive “biopsychosocial” care.
7. Provides urgent basic life support interventions for medical and surgical emergencies and participates effectively in rapid response systems to facilitate better clinical outcomes and proper utilization of resources.
8. Performs essential emergency procedures (diagnostic and therapeutic) to manage acute problems.
9. Coordinates advance management for patients with emergency conditions through efficient, timely and correct patient referral, transfer of care and internal endorsement.

10. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the ED.
11. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.

12. Applies patient safety principles and measures during the assessment and management of patients with emergency illnesses.

13. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in medical fields (e.g., Informed consent and decision, DNR, and health care proxy).
14. Develops and maintains professional conduct and sense of accountability.

15. Demonstrates commitment to lifelong learning principles by participating in ED educational activities.
16. Participates in EBM activities including high-quality journal clubs focusing on current medical updates.
Residents should master the necessary clinical information for approaching the following acute clinical conditions in adult and pediatric patients:

**General:**
- Basic and advanced life support
- Shock
- Sepsis
- Trauma
- Fever/ acute infections
- Anaphylaxis and angioedema
- Abuse and non-accidental trauma
- Bleeding

**Cardiac:**
- Cardiac arrest
- Arrhythmias
- Acute coronary syndrome
- Pulmonary embolism/ DVT
- Heart failure, pulmonary edema
- Hypertensive urgencies and emergencies

**Neurologic:**
- Coma and altered level of consciousness
- Seizure, status epilepticus
- Meningitis and encephalitis
- Stroke, TIA

**Environmental:**
- Hypothermia and hyperthermia
- Acute or chronic poisoning

**Respiratory:**
- Burns and frostbite
- Asthma acute exacerbations and status asthmaticus
- Airway obstruction
- Respiratory distress
- Exacerbation of asthma, COPD
- Hemoptysis

**Endocrine/Metabolic:**
- Diabetes emergencies (DKA, hyperosmolar and hypoglycemia)
- Thyroid emergencies (thyrotoxic storm, and myxedema)
- Adrenal (crisis)
- Dehydration and electrolyte abnormalities

**Genitourinary Disorders:**
- Acute renal failure
- Urinary retention, hematuria or Acute Renal Colic
- Scrotal pain or swelling (including torsion, hydroceles, epididymitis)
- Acute pelvic pain, or bleeding, STD’s

**Musculoskeletal:**
- Fracture, Acute severe Sprain
- Lacerations
- Dislocations
- Swollen limb
- Foreign bodies
- Acute Joint pain or swelling

**Hematology:**
- Sickle cell crises
- Severe anemia

**Psychiatry:**
- Psychosis and agitation
- Panic
- Behavioral and personality disorders (including addiction)
- Delirium
- Suicide
- Poisoning and overdoses

Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for patients with emergency conditions:

- Blood (CBC, cytology, peripheral blood smear, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR, arterial blood gases, Comb’s test)
- Microbiology (culture and sensitivity, SLO, viral hepatitis, VDRL, H. pylori, HIV, PCR, Monospot test, EBV, brucellosis, malaria, Lishmaniasis, infestations)
- ECG (12 leads ECG, stress test, treadmill testing, ambulatory ECG)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes, stool and urine analysis, fecal occult blood, spinal fluid analysis, CRP, TIBC, UIBC, ferritin, vitamin B12 and folic acid, uric acid, GFR, amylase, lipase, protein electrophoresis, osmolality, alpha-feto protein)
- Serology (rheumatoid factors, ANA, anti-microsomial Abs, anti-thyroglobulin Abs)
- Others (spirometry, EEG, EMG, echocardiography, nuclear cardiology)
- Tumor markers
- ECG readings
- Hormones essays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)
- Radiology (x-rays of chest, abdomen, KUB, and musculoskeletal, US abdomen, and Doppler US, fluoroscopy, CT brain, abdomen, and musculoskeletal, MRI brain, spine and joints) is this mandatory
## Skills

Residents **should** be able to perform the following **clinical assessments** for patients in the ED:

- Full clinical history taking including:
  - History of present illness
  - Systematic review
  - Past medical and surgical history
  - Family history
  - Psychosocial history (including ICEE)
  - Drug and food allergy
  - Behavioral history

- Full physical examination including:
  - Assess airway, breathing and circulation
  - General examination and vital signs
  - Head and neck examination
  - Chest examination
  - Abdomen and pelvis examination

- Musculoskeletal examination
- Neurological examination
- Foot examination
- Triaging

Residents **should** be able to perform the following **procedures** for patients in the ED:

- IV cannula insertion
- IV, IM, and SQ injections
- NGT
- Rectal enema
- Proctoscopy
- Trauma survey
- Incision and drainage
- IV line
- Splinting and applying different techniques of immobilization
- Suturing and suture removal
- Glasgow coma scale
- Foley’s catheter insertion and management
- CPR
- Anterior nasal packing and cautery for control epistaxis
- Use and interpret peak flow meter and Spirometry
- Urine dipstick
- Local anesthesia techniques
- Acid-base interpretation
- Central line insertion and management
- Tracheostomy tube management
- Foreign Body Removal
- Using nebulizer and humidified O₂
- Ear wax aspiration and ear syringing
- Dressing of common simple injuries

Residents **are advised** to perform the following **techniques** for patients in the ED:

- Airways Intubation
- Thoracic tube insertion
- Aspiration and injection of joints and soft tissues
- In-grown nail management
- Reduction of dislocation
- Arterial blood gas extraction
- Blood Transfusion
- Lumbar puncture
- Gastric lavage
Dermatology Rotation

Activities description:
The Dermatology rotation is intended to provide FM resident with the exposure to common findings and conditions in emergencies; acute and chronic patient presentation in the community; and to be involved in the decision-making process regarding assessment, diagnosis, and management of patients with dermatological conditions.

Activity Types:
The following are the activity types that the residents are expected to cover during the DER rotations

1. **Outpatient clinics**: Four hours of supervised general DER clinic.

Specific rules
In the Dermatology rotation, the FM residents must:

- Rotate in general dermatology units or specialized clinics including cosmesis, surgical, pediatric, and light therapy clinics, based on department structure.
- Have at least two free weekends every four weeks.
- Not exceed five on-call instances monthly.
- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.
- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Discusses the anatomy, pathophysiology, and clinical features of common dermatological conditions.
2. Explains the indications, contraindications, effectiveness, and side effects of common conservative, pharmacological, and invasive dermatological interventions.
3. Integrates relevant basic, clinical, and evidence-based information in the care of patients with dermatology conditions.
4. Applies diseases prevention and health promotion principles on patients attending dermatology clinics.
5. Manages common physiological and pathological manifestations of the skin during pregnancy that may affect the mother or her child.
6. Manages common acute dermatology problems through comprehensive “biopsychosocial” care.
7. Performs essential dermatology procedures (diagnostic and therapeutic) to manage acute problems (see skills).
8. Manages chronic dermatology illnesses through well-structured, continuous and evidence-based health care to control symptoms, prevent complications and improve quality of life.
9. Coordinates comprehensive and patient-centered multidisciplinary care for patients with chronic dermatology illnesses, according to patients’ needs and conditions.
10. Coordinates essential and elective dermatological and cosmetic interventions, and provide pre and post-procedural counseling and care.
11. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the dermatology department.
12. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.
13. Applies patient safety principles and measures during the assessment and management of dermatology patients.
14. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in dermatology fields (e.g., informed consent and decisions regarding certain conditions like; cosmesis).
15. Develops and maintains professional conduct and sense of accountability.
16. Demonstrates commitment to lifelong learning principles by participating in dermatology department educational activities.
17. Participates in EBM activities including high-quality journal clubs focusing on current dermatology related updates.
Residents should master the necessary clinical information for managing the following skin conditions:

- Types of burn
- Actinic keratosis
- Bacterial skin infections
- Fungal skin infections
- Viral infections and exanthems
- Benign skin lesions/neoplasms
- Bites and stings
- Disorders of sebaceous, eccrine, and apocrine glands

Residents should master the necessary clinical information for managing the following nail and hair conditions:

- Inflammatory conditions
- Nail infection (fungal, bacterial)
- Nail malignancies

Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for dermatological conditions:

- Blood (CBC, cytology, Hb electrophoresis, sickle test, typing, hematocrit, coagulation profile, ESR)
- Microbiology (culture and sensitivity, viral hepatitis, VDRL, HIV, PCR, Monospot test, EBV, NAAT test for chlamydia and gonorrhea)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, cardiac enzymes)
- Serology (rheumatoid factors, ANA, anti-microbial Abs, anti-thyroglobulin Abs)

Residents are advised to master the necessary clinical information for managing the following dermatology conditions:

Basic knowledge:
- Normal anatomy and physiology of skin, nails and hair.
- Describe skin lesions accurately

Basic microbiology, pharmacology and pathology of common dermatology conditions.

Miscellaneous
- Surgical dermatology
- Laser types
- Phototherapy
- Cosmetics
Residents should be able to perform the following clinical assessments for dermatology patients:

**Full clinical history taking including:**
- History of present illness
- Systematic review
- Past medical and surgical history
- Family history
- Psychosocial history (including ICEE)
- Drug and food allergy
- Behavioral history

**Full physical examination including:**
- Assess airway, breathing and circulation
- General examination and vital signs
- Skin examination including lesion description and categorization
- Wood’s lamp
- Nail, hair, scalp and mucus membranes examination

Residents should be able to perform the following procedures for dermatology patients:

- Local anesthesia
- Incision and drainage
- Skin closure techniques
- Cryotherapy
- Skin cautery
- Swabs/skin scrape
- Dressing and wound care
- IV cannula insertion
- IV, IM, and SQ injections

Residents are advised to perform the following procedures for dermatology patients:

- Biopsy of skin lesions (Punch biopsy, Shave biopsy, and excisional biopsy)
- Destruction of lesions (Electrodesiccation, Curettage)
- Layered closures; and subcuticular suturing
Orthopedic and Musculoskeletal Rotation

Activities description:

The Orthopedic/MSK rotation is intended to provide FM residents with exposure to common Orthopedic/MSK conditions in screening; emergencies, acute, and chronic patient presentation in the community; and to be involved in the decision-making process regarding assessment, diagnosis, and management of patients with orthopedic problems.

Activity Types:

The following are the activity types that the residents may cover during the ORT/MSK rotation

1. **Outpatient clinics**: Four hours of supervised general ORT/MSK clinic.

2. **Inpatient services**: Eight hours of supervised house officer duties for inpatients.

3. **On-call services**: Twenty-four hours of supervised on-call duties in the ED, including weekends.

4. **Hands-on training workshop**: Workshop session that might involve didactic, interactive, role-play, and simulation activities

Specific rules

This rotation can be delivered as a workshop, clinical rotation, or both based on availability in the training center. In the orthopedic clinical rotation, FM residents must

- Rotate in general orthopedic units, or major sub-specialties in orthopedics including trauma; arthroplasty; and joint repair, spine, and sport units, based on department structure.

- Have at least two free weekends every four weeks.

- Not exceed five on-call instances monthly.

- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.

- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duties, and a release from on-call duties on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Understands the basic anatomy, pathophysiology, and clinical features of common conditions in orthopedics.
2. Explains the indications, contraindications, effectiveness, and side effects of common orthopedic interventions.
3. Integrates relevant basic, clinical, and evidence-based information in the care of orthopedic patients.

4. Applies disease prevention and health promotion principles to patients attending orthopedic clinics.
5. Manages common pathological manifestations of orthopedic diseases during pregnancy that may affect mother or her child.
6. Manages common acute orthopedic problems through comprehensive “biopsychosocial” care.
7. Provides urgent basic life support interventions for orthopedic emergencies and participates effectively in rapid response systems to facilitate better clinical outcomes and proper utilization of resources.
8. Performs essential orthopedic procedures (diagnostic and therapeutic) to manage acute problems.
9. Manages common chronic orthopedic conditions by providing integrated and coordinated care.
10. Coordinates elective orthopedic interventions, and provide pre and post procedural counseling and care.

11. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the orthopedic department.
12. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.

13. Applies patient safety principles and measures during the assessment and management of orthopedic patients.

14. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in orthopedic field (eg. Informed consent and decision, DNR, health care proxy).

15. Develops and maintains professional conduct and sense of accountability.

16. Demonstrate commitment to lifelong learning principles by participating in orthopedic department educational activities.
17. Participate in EBM activities including high-quality journal clubs focusing on current medical updates.
Residents should master the necessary clinical information for approaching the following clinical orthopedic conditions.

**Adult problems:**
- Arthralgia, swelling, and erythema
- Muscular pain and injury
- Ligament sprain
- Musculoskeletal trauma
- Fractures and dislocations
- Nerve injuries and joint deformities
- Bursitis, tendinopathy, and tenosynovitis
- Common fibrocartilage injuries
- Neurologic conditions (e.g., nerve entrapment syndromes)
- Synovial cysts (e.g., Baker cyst, ganglion cysts)
- Patellofemoral syndrome
- Osteochondroses/aseptic necrosis
- Osteoarthritis (gout, pseudogout)
- Infections
- Costochondritis

Residents should master the necessary clinical information for managing the following sport related conditions.

- General considerations of the impact of sport/physical activity on patients
- Ethical, psychosocial, and medico-legal issues
- Banned substances to avoid in athletics
- Pre-sport evaluation
- Injury prevention
- Conditioning and training techniques, including principles of aerobic and resistance training
- Athletes with chronic diseases
- Exercise types and addiction
- Effect of anabolic steroids and other performance-enhancing substances
- Female athlete triad

Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for orthopedic patients.

- Blood (CBC, Hb electrophoresis, coagulation profile, ESR)
- Hormones essays (TFT, cortisone, parathyroid)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, CRP, vitamin D, uric acid, bone profile, synovial fluid analysis)
- Microbiology (culture and sensitivity)
- Radiology (x-rays and CT musculoskeletal, spine and joints MRI)
- ECG reading in athletes
Residents are *advised* to master the necessary clinical information regarding following orthopedic topics.

- Normal anatomy and physiology of musculoskeletal system.
- Basic microbiology, pharmacology and pathology of common orthopedic conditions.
- Indications, limitations, contraindications, for musculoskeletal procedures.
- Concussion
- Tendon ruptures (partial and complete)
- Avascular necrosis
- Sever disease
- Iselin disease
- Blount disease
- Pes planus (flexible Vs rigid)
- Special Olympics athletic clearance
- Complementary and alternative modalities
- Electrical stimulation (e-stim) and iontophoresis
- Occupational therapy
- Complementary modalities (massage, and acupuncture)
- Internal and external fixation devices

### Skills

Residents *should* be able to perform the following clinical assessment for orthopedic patients.

**Full clinical history taking** including:
- History of present illness
- Systematic review
- Past medical and surgical history
- Family history
- Psychosocial history (including ICEE)
- Drug and food allergy
- Behavioral history

**Full physical examination** including:
- Assess airway, breathing and circulation
- General examination
- Vital signs
- Head and neck examination
- Chest examination
- Abdomen and pelvis examination
- Musculoskeletal examination
- Neurological examination

Residents *should* be able to perform the following orthopedic procedures.

- Correction of dislocations (e.g., nursemaid’s elbow)
- Intra-articular injection
- Joint aspiration (arthrocentesis)
- Common injections for bursitis
- Splints fixation for upper and lower extremity
- Cast problems release (arthrocentesis)
- Closed reduction of joint dislocation (shoulder, radial head)
- Suturing and laceration repair and suture removal, local anesthesia techniques (infiltration, ring block)

Residents *are advised* to perform the following procedures for orthopedic patients.

- Basic management of fractures (simple, stable, closed, and nondisplaced that do not require surgical correction)
- Common injections for tendinopathy
- Common tendon sheath injections
- Plaster and fiberglass casts
Ophthalmology Rotation

**Activities description:**

The Ophthalmology rotation is intended to provide FM residents with exposure to common ophthalmology conditions in screening; emergencies, acute, and chronic patient presentation in the community; and to be involved in the decision-making process regarding assessment, diagnosis, and management of patients with orthopedic problems.

**Activity Types:**

The following are the activity types that the residents may cover during the OPT rotation:

1. **Outpatient clinics:** Four hours of supervised general OPT clinic.

2. **Hands-on training workshop:** Workshop session that might involve didactic, interactive, role-play, and simulation activities.

**Specific rules**

This rotation can be delivered as a workshop, clinical rotation, or both based on availability in the training center. In the ophthalmology rotation, FM residents must:

- Rotate in general ophthalmology unit, or major sub-specialties in ophthalmology including trauma, cornea and refractive, retina, pediatric, oculoplastic and neuro-ophthalmology, based on department structure.

- Have at least two free weekends every four weeks.

- Not exceed five on-call instances monthly.

- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.

- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Understands the basic anatomy, pathophysiology, and clinical features of common conditions in ophthalmology.
2. Explains the indications, contraindications, effectiveness, and side effects of common ophthalmology interventions.
3. Integrates relevant basic, clinical, and evidence-based information in the care of ophthalmology patients.
4. Applies disease prevention and health promotion principles on patients attending ophthalmology clinics including periodic ophthalmology screening for newborn, children, geriatric, and patients with systemic diseases that associated with eye manifestations.
5. Manages common pathological and physiological manifestations of the eyes during pregnancy that may affect mother or her child.
6. Manages common acute ophthalmology problems through comprehensive “biopsychosocial” care.
7. Performs essential ophthalmology procedures (diagnostic and therapeutic) to manage acute problems.
8. Manages common chronic ophthalmology conditions by providing integrated and coordinated care.
9. Coordinates elective ophthalmology interventions, and provide pre and post procedural counseling and care.
10. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the ophthalmology department.
11. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.
12. Applies patient safety principles and measures during the assessment and management of ophthalmology patients.
13. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in medical fields (e.g., Informed consent and decision, DNR, and health care proxy).
14. Describe the legal implications of diagnosing patients with visual impairment including licensing, compensation, forced retirement, and pension, and discuss the liability of clearing individuals’ vision exam (driving license).
15. Demonstrate commitment to lifelong learning principles by participating in ophthalmology department educational activities.
16. Participate in EBM activities including high-quality journal clubs focusing on current medical updates.
Residents should master the necessary clinical information for approaching the following clinical ophthalmology conditions.

### Refractive errors
- Ametropia (myopia, hyperopia, astigmatism)
- Anisometropia
- Presbyopia
- Refractive surgery
- Amblyopia

### Lid and lacrimal system
- Trauma: contusion, abrasion, avulsion, laceration
- Infection: blepharitis, meibomitis, herpes simplex virus, herpes zoster virus, molluscum, pediculosis
- Inflammation: chalazion, hordeolum, contact dermatitis, blepharochalasis
- Bell palsy
- Lacrimal gland: nasolacrimal duct obstruction, dacryocystitis, nasolacrimal gland obstruction, dacryoadenitis, lacrimal gland tumor

### Conjunctiva
- Trauma: foreign body, lacerations, subconjunctival hemorrhage
- Inflammation: chemosis, follicles, papillae, phlyctenule
- Conjunctivitis
- Infectious (bacterial, viral including herpes simplex and herpes zoster, chlamydia)

### Sclera
- Erysipelas, Scleritis, and Scleral perforation

### Cornea
- Trauma: abrasion, laceration, burn (chemical and thermal), foreign body, globe perforation
- Infectious: keratitis and corneal ulcers (bacterial, viral [including herpes zoster], fungal, parasitic)
- Contact lens-related problems: abrasion, corneal hypoxia, keratitis

### Anterior chamber
- Glaucoma: Angle-closure glaucoma (primary and secondary), open-angle glaucoma
- Hyphema, Hypopyon and Anterior uveitis

### Retina and choroid
- Central and branch retinal artery occlusion
- Central and branch retinal vein occlusion
- Retinopathy of prematurity
- Diabetic retinopathy

### Lens
- Hypertensive retinopathy
- Age-related macular degeneration: non-exudative (dry) and exudative (wet)

### Vitreous
- Vitreous hemorrhage
- Posterior vitreous detachment
- Optic nerve
- Papilledema

### Orbit
- Trauma: blunt and penetrating trauma, including orbital fracture
- Infectious: pre-septal cellulitis, orbital cellulitis
- Inflammation: thyroid-related ophthalmopathy

### Extraocular muscles and cranial nerves
- Strabismus: horizontal (esotropia and exotropia), vertical
- Nystagmus: congenital acquired and physiologic III, IV, VI cranial nerve palsy
- Myasthenia gravis
- Effects of drugs and toxins on oculomotor function

### Sports-related eye injuries

Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for ophthalmology.

- Blood (CBC, Hb electrophoresis, coagulation profile, ESR)
- Hormones essays (TFT, cortisone, parathyroid)
- Biochemistry (LFT, RFT, electrolytes, blood glucose, HbA1C, lipid profile, CRP, vitamin D, uric acid, bone profile, synovial fluid analysis)
- Microbiology (culture and sensitivity)
- CT/MRI head
Residents are advised to master the necessary clinical information regarding following ophthalmology topics.

**Lid and lacrimal system**
- Benign tumors: nevus, seborrheic keratosis, hemangioma, port-wine stain, xanthelasma
- Malignant tumors: basal cell carcinoma, squamous cell carcinoma, actinic keratosis, sebaceous cell carcinoma, keratoacanthoma, malignant melanoma, metastatic tumor
- Systemic diseases: neurofibromatosis, sarcoidosis, amyloidosis
- Congenital anomaly: epicanthus, coloboma, ankyloblepharon
- Lid margin: ectropion, entropion, trichiasis

**Sclera**
- Sclera discolorations (scleral icterus, ectasia)

**Lens**
- Congenital anomaly: coloboma, lenticonus, lentiglobus, microspherophakia, congenital cataract
- Aphakia, Pseudophakia, and Dislocated lens

**Cornea**
- Neovascularization, corneal warpage, giant papillary conjunctivits, superior limbic keratoconjunctivitis.
- Ectasia; keratoconus, keratoglobus
- Congenital anomaly: dermoid, megalocornea, microcornea
- Dystrophy
- Deposits: calcium, copper, drugs, metals

**Iris and pupil**
- Heterochromia
- Aniridia, coloboma
- Tumors: cysts, nevus, nodules, malignant melanoma, metastatic tumors
- Trauma: sphincter tear, iritis, iridodialysis

**Retina and choroid**
- Central and branch retinal artery occlusion
- Central and branch retinal vein occlusion
- Retinopathy of prematurity
- Diabetic retinopathy
- Hypertensive retinopathy

**Age-related macular degeneration: nonexudative (dry) and exudative (wet)**

**Optic nerve**
- Idiopathic intracranial hypertension
- Optic neuritis
- Optic neuropathy: ischemic, traumatic, hereditary, toxic, and others
- Congenital anomalies: coloboma, tilted disc, optic nerve drusen

**Tumors**

**Orbit**
- Congenital: microphthalmos, nanophthalmos, craniofacial disorders
- Tumors (benign and malignant): dermoid cyst, rhabdomyosarcoma, neuroblastoma, leukemia, meningioma, metastatic tumors vi. atrophy bulbi

**Skills**

Residents should be able to perform the following clinical assessments for ophthalmic patients.

- **Full clinical history taking**
  - History of present illness
  - Systematic review
  - Past medical and surgical history
  - Family history
  - Psychosocial history (including ICEE)
  - Drug and food allergy

- **Full physical examination**
  - General eye assessment.
  - Vision evaluation, from birth to senescence.
  - Visual field testing
  - Test for ocular motility:
    - Flashlight examination
  - Confrontation field and Amsler grid testing
    - cover test, cover-uncover test, alternate cover test, and corneal light reflex test
    - The Ishihara test
    - Color vision test (pseudo-isochromatic plates)
    - Ophthalmoscopy

Residents should be able to perform the following ophthalmologic procedures.

- Eye irritation
- Fluorescein dye examination
- Superficial Foreign body removal
- Application of eye shield, Upper eye-lid eversion

Residents are advised to perform the following procedures.

- Slit lamp exam
- Schirmer’s test
- Corneal topography
- Optical coherence tomography
- Eye MRI and CT scan
- Ocular ultrasound
Otolaryngology Rotation

Activities description:

The ENT rotation is intended to provide FM residents with exposure to common otorhinolaryngology conditions in screening; emergencies, acute, and chronic patient presentation in the community; and to be involved in the decision-making process regarding assessment, diagnosis, and management of patients with ENT problems.

Activity Types:

The following are the activity types that the residents may cover during the OPT rotation

1. **Outpatient clinics:** Four hours of supervised general OPT clinic.

2. **Hands-on training workshop:** Workshop session that might involve didactic, interactive, role-play, and simulation activities

Specific rules

This rotation can be delivered as a workshop, clinical rotation, or both based on availability in the training center. In the ENT rotation, the FM residents must:

- Rotate in general ENT unit, or major sub-specialties in otorhinolaryngology including trauma, head and neck surgery, otology, thyroid and parathyroid surgery, rhinology, pediatrics, laryngology, based on department structure.

- Have at least two free weekends every four weeks.

- Not exceed five on-call instances monthly.

- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.

- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Understands the basic anatomy, pathophysiology, and clinical features of common conditions in ENT.
2. Explains the indications, contraindications, effectiveness, and side effects of common ENT interventions.
3. Integrates relevant basic, clinical, and evidence-based information in the care of ENT patients.

4. Applies disease prevention and health promotion principles to patients attending ENT clinics, including periodic hearing, speech and language screening for newborns, children, geriatric, and patients with systemic diseases that are associated with ENT manifestations.
5. Manages common pathological manifestations of ENT diseases during pregnancy that may affect mother or her child.
6. Manages common acute ENT problems through comprehensive “biopsychosocial” care.
7. Provides urgent basic life support interventions for ENT emergencies and participates effectively in rapid response systems to facilitate better clinical outcomes and proper utilization of resources.
8. Performs essential ENT procedures (diagnostic and therapeutic) to manage acute problems.
9. Manages common chronic ENT conditions by providing integrated and coordinated care.
10. Coordinates elective ENT interventions, and provide pre and post procedural counseling and care.

11. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the ENT department.
12. Demonstrates the ability to write comprehensive medical documents including progress notes, referral, medical reports, and discharge summaries, and to utilize technology to enhance communications.

13. Applies patient safety principles and measures during the assessment and management of ENT patients.

14. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in medical fields (e.g., informed consent and decision, DNR, and health care proxy).
15. Describes the legal implications of diagnosing patients with hearing impairment including licensing, compensation, forced retirement, and pension, and discuss the liability of clearing individuals’ hearing exam (driving license).

17. Demonstrates commitment to lifelong learning principles by participating in ENT department educational activities.
18. Participates in EBM activities including high-quality journal clubs focusing on current medical updates.
Residents should master the necessary clinical information for approaching the following clinical ENT conditions.

**Head and neck:**
- Dizziness / vertigo
- Head and neck pain / masses
- Facial palsy
- Stomatitis

**Ears:**
- Otitis media
- Otorrhoea/otalgia
- Hearing loss
- Tinnitus
- Chronic ear disease
- Cerumen impaction (ceruminosis)
- Otitis externa
- Otomycosis
- Furunculosis

**Throat:**
- Cough/sneezing
- Sore throat
- Recurrent tonsillitis
- Peritonsillar abscess
- Adenoid enlargement
- Hoarseness
- Stridor
- Dysphagia
- Airway obstruction (e.g. foreign body)
- Croup
- Epiglottitis
- Diphtheria
- Obstructive sleep apnea
- Indications for tracheostomy

**Nose:**
- Epistaxis
- Runny nose
- Sinusitis
- Snoring
- Anosmia
- Rhinitis

Residents should master the necessary clinical information for ordering and interpreting the following laboratory and radiology investigations for ENT patients.

- **Blood** (CBC, differential, coagulation profile)
- **Serology** (rapid screen strep test, Monospot test)
- **Hormones essays** (TFT)
- **Microbiology** (culture and sensitivity)
- **Radiology** (sinus x-rays, throat and chest x-rays, brain and sinus CT and MRI scans)
- **Others** (pure tone audiometry, tympanometry)

Residents are advised to master the necessary clinical information regarding following ENT topics.

**Basic knowledge:**
- Normal anatomy and physiology of head and neck.
- Basic microbiology, pharmacology and pathology of common ENT conditions.
- Clinical knowledge

**Head and neck:**
- Mastoiditis
- Meniere’s disease
- Intra-Cranial Complications
- Oral manifestations of HIV
- Common surgical interventions
- Masses/neoplasia

**Ears:**
- Tympanosclerosis
- Cholesteatoma
- Congenital anomalies
- Trauma
- Common surgical interventions
- Masses/neoplasia
- Hearing aids

**Nose:**
- Nasal deformity
- Nasal polyposis
- Trauma
- Common surgical interventions
- Masses/neoplasia

**Throat:**
- Infectious mononucleosis
- Moniliasis
- Laryngomalacia
- Vocal nodules
- Leukoplakia
- Vocal cords paralysis

**Common ENT interventions.**
- Adenoidectomy and tonsillectomy
- Radical mastoidectomy,
- Myringotomy/myringoplasty
- Rhinoplasty
- Tracheostomy
Residents **should** be able to perform the following **clinical assessment** for ENT patients:

<table>
<thead>
<tr>
<th>Full clinical history taking including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of present illness</td>
</tr>
<tr>
<td>Systematic review</td>
</tr>
<tr>
<td>Past medical and surgical history</td>
</tr>
<tr>
<td>Family history</td>
</tr>
<tr>
<td>Psychosocial history (including ICEE)</td>
</tr>
<tr>
<td>Drug and food allergy</td>
</tr>
<tr>
<td>Behavioral history</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Full physical examination including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess airway, breathing and circulation</td>
</tr>
<tr>
<td>General examination</td>
</tr>
<tr>
<td>Vital signs</td>
</tr>
<tr>
<td>Head and neck examination</td>
</tr>
<tr>
<td>Chest examination</td>
</tr>
<tr>
<td>Otoscope examination</td>
</tr>
<tr>
<td>Rinne and weber test</td>
</tr>
<tr>
<td>Dix-Hallpike maneuver</td>
</tr>
<tr>
<td>Cranial nerves examination</td>
</tr>
</tbody>
</table>

Residents **should** be able to perform the following **ENT procedures**:

<table>
<thead>
<tr>
<th>Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audiometry</td>
</tr>
<tr>
<td>Tympanometry</td>
</tr>
<tr>
<td>Nasal packing and cautery</td>
</tr>
<tr>
<td>Intubation</td>
</tr>
</tbody>
</table>

Residents **are advised** to perform the following **procedures** for ENT patients:

<table>
<thead>
<tr>
<th>Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maxillary antrostomy</td>
</tr>
<tr>
<td>Waterpik sinusense</td>
</tr>
<tr>
<td>Esophageal manometry</td>
</tr>
<tr>
<td>Endoscopy</td>
</tr>
<tr>
<td>Tympanoplasty</td>
</tr>
</tbody>
</table>
Radiology Rotation

Activities description:

The radiology rotation is intended to provide FM residents with exposure to common radiology conditions in screening; emergencies, acute, and chronic patient presentation in the community; and to be involved in the decision-making process regarding assessment, diagnosis, and management of patients with radiology findings.

Activity Types:

The following are the activity types that the residents may cover during the RAD rotation

1. **Outpatient clinics**: Four hours of supervised reporting sessions.
2. **Hands-on training workshop**: Workshop session that might involve didactic, interactive, role-play, and simulation activities

Specific rules

This rotation can be delivered as a workshop, clinical rotation, or both based on availability in the training center. In the radiology rotation, the FM residents must:

- Rotate in general radiology unit, or major sub-specialties in radiology including abdominal, breast, thoracic, cardiac, emergency, musculoskeletal imaging, neuro-radiology, and pediatric, based on department structure.
- Have at least two free weekends every four weeks.
- Not exceed five on-call instances monthly.
- Participate actively in departmental academic activities including morning meetings, grand rounds, interdepartmental meetings, MM meetings, and tutorials.
- Attend FM program WADA, which includes a weekly full-day release from outpatient and inpatient duty, and a release from on-call duty on the same day and the day before.
Competencies

By the end of rotations, the resident shall be able to:

1. Discusses basic anatomy referable to all applications of diagnostic imaging such as plain films, CT, ultrasound, and MRI.
2. Explains the indications, contraindications, effectiveness, and side effects of common in radiological diagnostic and therapeutic interventions.
3. Integrates relevant basic radiological findings, clinical presentation, and evidence-based information toward patient the care.

5. Recognizes the radiation hazards and precautions during pregnancy and childhood.
6. Selects and applies radiological testing in common acute patient presentation effectively.
7. Selects and applies radiological testing in chronic patient presentation effectively.

8. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the radiology department.
9. Demonstrates the ability to write comprehensive radiology report including the history, physical exam and final diagnosis based on the radiological findings.

10. Applies patient safety principles and measures during the assessment and management of the patient undergoing radiological procedure.

11. Describes the legal implications of malpractice and negligence, and understands the principles of common legal practices in medical fields (e.g., informed consent and decision, DNR, health care proxy).
12. Develops and maintains professional conduct and sense of accountability.

13. Demonstrates commitment to lifelong learning principles by participating in radiology department educational activities.
14. Participates in EBM activities including high-quality journal clubs focusing on current medical updates.
Residents should master the necessary clinical information for approaching the following conventional radiology conditions.

- Identify normal anatomy on PA, AP, and lateral chest films
  - Pleural effusion,
  - Pneumothorax,
  - Pneumonia
  - Congestive heart failure,
  - Chronic obstructive pulmonary disease,
  - Atelectasis,
  - Pulmonary nodules and masses,
  - Hyaline membrane disease of the newborn

- Identify normal anatomy on four views of the abdomen
  - Ileus,
  - Small bowel obstruction,
  - Large bowel obstruction,
  - Free air, and
  - Calcifications

- Identify normal anatomy of the spine and long bones in both adults and children
  - Fractures,
  - Degenerative joint disease,
  - Osteoporosis (including vertebral collapse),
  - Primary versus metastatic bone malignancy

Identify normal anatomy on barium enema, and upper gastrointestinal series

Residents should master the necessary clinical information for approaching the following ultrasound and mammogram related conditions

- Breast US and mammogram
  - OB/Gyn
    - Molar pregnancy,
    - Anencephalic pregnancy,
    - Placenta previa,
    - Fetal age
    - Ectopic pregnancy.

- Vascular Doppler ultrasound
  - Aneurysm
  - Deep vein thrombosis,
  - Carotid artery and peripheral vascular disease

- GIT
  - Gall bladder and bile duct
  - Liver
  - Renal stone
  - Genitourinary

Residents should master the necessary clinical information for approaching the following CT scan and MRI related conditions

- Discuss general indications of when to use CT and MRI as the imaging of choice.
- Identify normal anatomy found on CT and MRI of the head, spine, chest, abdomen, and pelvis

  - Head CT
    - Subarachnoid hemorrhage
    - Subdural hemorrhage
    - Parenchymal hemorrhage
    - Infarcts,
    - Cerebral edema,
    - Brain mass,
    - Hydrocephalus

  - Chest CT
    - Pulmonary nodules
    - Chest masses
    - Abdominal/pelvis CT
      - Diverticular disease,
      - Appendicitis,
      - Bowel obstruction,
      - Abdominal aortic aneurysms,
      - Pancreatitis,
      - Abdominal abscesses,
      - Ascites,
      - Hepatic,
      - Pancreatic
      - Renal masses

  - Spine CT
    - Metastatic disease,
    - Degenerative joint disease,
    - Disc disease

  - head and spine MRIs
    - Central nervous system infection,
    - Masses,
    - Stroke syndromes,
    - Multiple sclerosis,
    - Disc disease,
    - Metastatic vertebral column disease,
    - Cord compression
Residents are advised to master the necessary clinical information regarding following orthopedic topics.

**Ultrasound:**
- Echocardiogram (transthoracic versus transesophageal echocardiography, chamber size, valvular disease, and pericardial effusions)
- Renal ultrasound for cysts and tumors
- Prostate ultrasound
- FAST ultrasound for trauma

**Nuclear Medicine:**
- HIDA scans,
- Bone scans,
- Myocardial perfusion and function scans,
- Bone densitometry scans,
- Ventilation / perfusion scans

**Angiography:**
- Subarachnoid hemorrhage
- Berry aneurysms,
- Vascular stenotic lesions,
- Pulmonary angiogram for PE,
- Aortic dissection,
- Aortic trauma,
- Gastrointestinal bleeding

**Skills**

Residents should be able to perform the following clinical assessments for patients undergoing radiology assessment.

**Full clinical history taking including:**
- History of present illness
- Systematic review
- Past medical and surgical history
- Family history
- Psychosocial history (including ICEE)
- Drug and food allergy
- Behavioral history

**Full physical examination including:**
- Assess airway, breathing and circulation
- General examination
- Vital signs
- Head and neck examination
- Chest examination
- Abdomen and pelvis examination
- Musculoskeletal examination
- Neurological examination
### Didactic Courses

**Weekly Academic Day Activities (WADA)**

**Introduction**

There should be one weekly academic activity for all residents. Residents should be released from their commitments in rotations during this time. WADA is divided into two parts: morning and afternoon sessions. In the morning, the academic activities consist of a 4-hour session, which is conducted by the residents. The academic activities in the morning should be distributed among the residents and addressed as “modules,” while the afternoon activities comprise a 3-hour session that is designed to enhance residents’ soft skills (e.g., communication, consultation, research, quality project, etc.) and procedures (e.g., suturing, blood extractions, dressing, IV lines; see procedure Appendix). These activities are advised to be conducted practically in group work.

The FM program should organize at least 32 morning and 16 afternoon hands-on activities, weekly, per the academic year. It is advised to organize the afternoon activities in an alternative way among the residents to ensure adequate exposure to these skills among all the residents. The duties of FM clinics for the residents would be 7 clinics/week for FM module I, II, and III (and an optional two longitudinal clinics/month for residents in the hospital rotations per the program administration decision).

**Example of WADA weekly table:**

#### Week 1

<table>
<thead>
<tr>
<th>Activity days</th>
<th>WADA</th>
<th>Afternoon session</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Morning session</td>
<td>Afternoon sessions</td>
</tr>
<tr>
<td>Sunday</td>
<td></td>
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</tr>
<tr>
<td>Monday</td>
<td>All senior residents</td>
<td>Group A of seniors</td>
</tr>
<tr>
<td>Tuesday</td>
<td>All junior residents</td>
<td>Group A of juniors</td>
</tr>
<tr>
<td>Wednesday</td>
<td></td>
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</tbody>
</table>

#### Week 2

<table>
<thead>
<tr>
<th>Activity days</th>
<th>WADA</th>
<th>Afternoon session</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Morning session</td>
<td>Afternoon sessions</td>
</tr>
<tr>
<td>Sunday</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td>All senior residents</td>
<td>Group B of seniors</td>
</tr>
<tr>
<td>Tuesday</td>
<td>All junior residents</td>
<td>Group B of juniors</td>
</tr>
<tr>
<td>Wednesday</td>
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</tbody>
</table>
Objectives

1. To link FM to hospital medicine
2. To enable residents to acquire up-to-date knowledge and exchange information and experiences with their colleagues and trainers
3. To incorporate the FM approach into clinical problem management
4. To acquire skills important for family physicians (e.g., problem solving, teamwork, consultation skills, negotiation skills, and presentation skills)
5. To alleviate residents’ stress and allow them to socialize with their colleagues of various levels

Guidelines for WADA

๏ Main Themes (60–80% of sessions): Presentations by residents and small groups and workshops facilitated by trainers. These should be presented in line with the problem-solving approach in FM with evidence-based information given as much as possible.

๏ To assure maximum benefit of these sessions, the trainer must contribute actively to the session.

๏ Open activity: Allow one to two sessions per year of WADA to be a free activity in which both residents and trainers gather socially to reduce stress

๏ Elective sessions per year: These sessions aim to improve certain skills of residents in an enjoyable way. Priorities and selection should be based on residents’ needs

๏ WADA content should take into consideration that the program is run on a 3-year cycle to accommodate learning needs (identified from feedback) and curriculum requirements.

Regulations

The Weekly Academic Day Activity (WADA) is a mandatory component of the residency program. It is meant to complement the clinical experience that residents gain during their clinical rotations. Substantial effort should be made into making these sessions interesting and relevant.

๏ For each session, there will be one (or more) resident(s) and one trainer responsible for conducting and organizing the whole session. The residents should work under trainer supervision.

๏ The entire group should participate actively in preparation and during the activities.

๏ The objectives of the weekly day academic activities should be stated clearly in the WADA schedule

๏ A trainer should supervise each resident during the preparation of the presentation (the WADA schedule indicates the supervisors’ and residents’ names with corresponding dates).
The residents should contact their supervisors at least 2–3 weeks before the presentation to discuss the timetable, presentation(s), and methods of learning and topics for discussion. If the residents have any difficulty contacting their supervisors, they should contact the program training office.

The supervisor trainer should attend the presentation with the residents to facilitate the session.

Educational activities should have different educational methods and strategies; however, passive learning methods such as lecturing should be avoided. These methods include but are not restricted to the following: problem solving, case discussion, interactive mini lectures, group discussion, role play, tutorials, workshops, and assignments.

In all educational sessions, emphasis should be placed on important issues of ethics, EBM, practice management, disease prevention, health promotion, proper communication skills, and professionalism. Please adhere to the training preprogram mission and the Saudi Commission manual.

Residents attendance:

- Attendance should be registered and a copy of the attendance record will be kept for report and documentation.
- Each resident must attend 100% of the WADA.
- Residents with poor punctuality shall receive a reminder or warning letter for unjustified absences. Residents who continue to show poor punctuality with no acceptable reason will be sent a second warning letter. Further action will be taken according to the Saudi Commission rules and regulations in this regard.

Learning methods:

Interactive learning should be the core of teaching methods, and the format should include the following, as appropriate:

- Interactive lectures
- Group work
- Workshops
- Hands-on activities
- Regular continuous feedback
- Role play
First: Examples of Core Specialty Topics for the Weekly Academic Day Activities.

### 1. Family Medicine

<table>
<thead>
<tr>
<th>Topic</th>
<th>Learning outcomes</th>
</tr>
</thead>
</table>
| **Hypertension**       | 1. Screen for hypertension  
2. Use correct technique and equipment to measure blood pressure  
3. Assess and periodically re-evaluate the overall cardiovascular risk and end-organ complications  
4. Suggest individualized lifestyle modifications to patients with hypertension. (e.g., weight loss, exercise, and dietary changes)  
5. Treat hypertension with appropriate pharmacological therapy (e.g., consider the patient’s age, concomitant disorders, other cardiovascular risk factors)  
6. Approach and management of patient with hypertension urgency and emergency |
| **Dyslipidemia**       | 1. Screen appropriate patients for hyperlipidemia  
2. Take an appropriate history, and examine and test the patient for modifiable causes (e.g., alcohol abuse, thyroid disease)  
3. Treat hyperlipidemia patients, establish target lipid levels based on overall CV risk  
4. Give appropriate lifestyle and dietary advice |
| **Diabetes mellitus**  | 1. Screen patients at high risk for diabetes at appropriate intervals  
2. Treat and modify treatment according to disease status (e.g., use oral hypoglycemic agents, insulin, diet, and/or lifestyle changes)  
3. Look for complications (e.g., proteinuria)  
4. Refer as necessary to specialists for further management  
5. Management of DKA in Primary healthcare |
| **Periodic health assessment and screening** | 1. Perform a periodic health assessment in a proactive or opportunistic manner  
2. Adapt the periodic health examination to the patient’s sex and age. |
| **Upper respiratory tract infection** | 1. Take appropriate history and/or physical examination  
2. Differentiate life-threatening conditions (epiglottitis, retropharyngeal abscess) from benign conditions  
3. Manage the condition appropriately with appropriate use of antibiotics |
| **Cough**              | 1. Generate a broad differential diagnosis  
2. Consider non-pulmonary causes (e.g., GERD, congestive heart failure, rhinitis), as well as other serious causes (e.g., cancer, PE)  
3. Investigate appropriately |
| **Headache**           | 1. Differentiate benign from serious pathology through history and physical examination  
2. Perform the appropriate work-up (e.g., biopsy, computed tomography [CT], lumbar puncture [LP], erythrocyte sedimentation rate) |
| **Obesity**            | 1. Define the causes of obesity  
2. Recognize the long-term complications  
3. Discuss the interventional strategies that are involved in weight reduction  
4. Calculate and interpret body mass index  
5. Promote a healthy lifestyle and obesity prevention |
### Immunization

<table>
<thead>
<tr>
<th>Learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Differentiate between passive and active immunization</td>
</tr>
<tr>
<td>2. Discuss using immunoglobulin and the indications, contraindications, and complications</td>
</tr>
<tr>
<td>3. Recognize the principles and the rationale behind the national immunization policy for children in Saudi Arabia</td>
</tr>
<tr>
<td>4. Discuss the indications, contraindications, and complications of routine childhood immunizations</td>
</tr>
<tr>
<td>5. Determine how to immunize a child with special conditions or illness or missing vaccine</td>
</tr>
<tr>
<td>6. Recognize important recommended adult immunizations</td>
</tr>
</tbody>
</table>

### Anemia

<table>
<thead>
<tr>
<th>Learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Differentiate between the different causes of anemia</td>
</tr>
<tr>
<td>2. Discuss the investigations that may clarify the diagnosis</td>
</tr>
<tr>
<td>3. Recognize the predisposing factors and consequences of iron deficiency anemia and discuss how to manage it</td>
</tr>
<tr>
<td>4. Discuss the hereditary basis and clinical features of sickle cell anemia and thalassemia and how to screen for it</td>
</tr>
<tr>
<td>5. Recognize and initiate management of sickle cell crisis</td>
</tr>
</tbody>
</table>

### 2. Surgery

#### Vascular disease

<table>
<thead>
<tr>
<th>Approach, management and follow-up of patients with the following conditions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Acute lower limb ischemia</td>
</tr>
<tr>
<td>✔ Chronic lower limb ischemia</td>
</tr>
<tr>
<td>✔ Varicose veins</td>
</tr>
<tr>
<td>✔ Superficial thrombophlebitis</td>
</tr>
<tr>
<td>✔ Deep venous thrombosis (DVT)</td>
</tr>
<tr>
<td>✔ Cellulitis and erysipelas of legs</td>
</tr>
<tr>
<td>✔ Nocturnal cramps</td>
</tr>
</tbody>
</table>

#### Head injury and unconsciousness

<table>
<thead>
<tr>
<th>Approach, management and follow up of patient with following conditions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Extradural hematoma</td>
</tr>
<tr>
<td>✔ Subdural hematoma</td>
</tr>
</tbody>
</table>

#### Genital disorders

<table>
<thead>
<tr>
<th>Approach, management and follow up of patient with following conditions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Hernias</td>
</tr>
<tr>
<td>✔ Hydroceles</td>
</tr>
<tr>
<td>✔ Hypospadias</td>
</tr>
<tr>
<td>✔ Foreskin and circumcision</td>
</tr>
</tbody>
</table>

#### Breast lumps

<table>
<thead>
<tr>
<th>Approach to patient with the following conditions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ Carcinoma of the breast</td>
</tr>
<tr>
<td>✔ Mammary dysplasia</td>
</tr>
<tr>
<td>✔ Breast cyst</td>
</tr>
<tr>
<td>✔ Lactation cysts (galactoceles)</td>
</tr>
<tr>
<td>✔ Fibroadenoma</td>
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<tr>
<td>✔ Fat necrosis</td>
</tr>
<tr>
<td>✔ Mammary duct ectasia</td>
</tr>
<tr>
<td>✔ Phyllodes tumor</td>
</tr>
<tr>
<td>Topic</td>
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<tr>
<td>------------------------------</td>
</tr>
<tr>
<td>Anorectal disorders</td>
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<tr>
<td>Benign prostatic hypertrophy</td>
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<td>Abdominal pain</td>
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### 3. Psychiatry

<table>
<thead>
<tr>
<th>Topic</th>
<th>Learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sleep disorders</strong></td>
<td>Approach, management and follow-up of patient with following conditions:</td>
</tr>
<tr>
<td></td>
<td>- Primary insomnia</td>
</tr>
<tr>
<td></td>
<td>- Periodic limb movements</td>
</tr>
<tr>
<td></td>
<td>- Restless legs syndrome</td>
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<tr>
<td></td>
<td>- Narcolepsy</td>
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<td></td>
<td>- Sleep apnea</td>
</tr>
<tr>
<td></td>
<td>- Para-insomnias</td>
</tr>
<tr>
<td></td>
<td>- Sleep disorders in children</td>
</tr>
<tr>
<td><strong>Depression</strong></td>
<td>- Screen for depression and diagnose it in high-risk groups</td>
</tr>
<tr>
<td></td>
<td>- Consider the diagnosis of depression and explore this possibility in patients with multiple somatic complaints</td>
</tr>
<tr>
<td></td>
<td>- Primary care management of depression</td>
</tr>
<tr>
<td><strong>Anxiety</strong></td>
<td>1. Recognize and rule out organic causes of symptoms of anxiety (e.g., shortness of breath, palpitations, hyperventilation)</td>
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<tr>
<td></td>
<td>2. Differentiate between the different types of anxiety disorders (e.g., agoraphobia, social phobia, generalized anxiety disorder, and panic disorder)</td>
</tr>
<tr>
<td></td>
<td>3. Offer appropriate treatment for anxiety, and approach and management of patients with:</td>
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<tr>
<td></td>
<td>- Generalized anxiety disorder</td>
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<tr>
<td></td>
<td>- Panic disorder</td>
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<td></td>
<td>- Phobic disorders</td>
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<td></td>
<td>- Obsessive–compulsive disorder</td>
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<tr>
<td></td>
<td>- Acute stress disorder</td>
</tr>
<tr>
<td></td>
<td>- Post-traumatic stress disorder</td>
</tr>
<tr>
<td>Other psychological conditions</td>
<td>Approach and management of patient with:</td>
</tr>
<tr>
<td></td>
<td>1. Somatization</td>
</tr>
<tr>
<td></td>
<td>2. Hypochondriasis</td>
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</tbody>
</table>
### 4. Medicine

<table>
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<tr>
<th>Topic</th>
<th>Learning outcomes</th>
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<tbody>
<tr>
<td><strong>Epilepsy</strong></td>
<td>management and follow-up of patient with following conditions:</td>
</tr>
<tr>
<td></td>
<td>Tonic-clonic seizures</td>
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<td></td>
<td>Absence seizure</td>
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<td></td>
<td>Complex partial seizures</td>
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<td></td>
<td>Simple partial seizures</td>
</tr>
<tr>
<td></td>
<td>Status epilepticus</td>
</tr>
<tr>
<td><strong>Headache</strong></td>
<td>management and follow-up of patient with following conditions:</td>
</tr>
<tr>
<td></td>
<td>Tension headache</td>
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<tr>
<td></td>
<td>Migraine</td>
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<td></td>
<td>Transformed migraine</td>
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<td></td>
<td>Cluster headache</td>
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<td></td>
<td>Cervical dysfunction/spondylosis</td>
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<td></td>
<td>Combination headache</td>
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<td></td>
<td>Temporal arteritis</td>
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<td></td>
<td>Frontal sinusitis</td>
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<td></td>
<td>Subarachnoid hemorrhage (SAH)</td>
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<td></td>
<td>Hypertension headache</td>
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<td></td>
<td>Benign intracranial hypertension (pseudo-tumor cerebri)</td>
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<tr>
<td><strong>Dyspnea</strong></td>
<td>management and follow-up of patient with following conditions:</td>
</tr>
<tr>
<td></td>
<td>Interstitial lung diseases</td>
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<td>Pulmonary function tests</td>
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<td></td>
<td>Sarcoidosis</td>
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<td></td>
<td>Fibrosing alveolitis</td>
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<td></td>
<td>Extrinsic allergic alveolitis</td>
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<td></td>
<td>Occupational pulmonary disease</td>
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<td></td>
<td>Acute respiratory distress syndrome</td>
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<td>Severe acute respiratory syndrome (SARS)</td>
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</tbody>
</table>
| Central nervous system infections | management and follow-up of patient with following conditions:  
  - Bacterial meningitis  
  - Viral meningitis  
  - Encephalitis  
  - Brain abscess  
  - Spinal subdural or epidural abscess  
  - Prion transmitted diseases  
  - Poliomyelitis                                                                                              |
| Bruising and bleeding        | management and follow-up of patient with following conditions:  
  - Vascular disorders  
  - Platelet disorders  
  - Coagulation disorders                                                                                                |
| Arthritis                    | management and follow-up of patient with following conditions:  
  - Osteoarthritis  
  - Rheumatoid arthritis  
  - Connective tissue disorders  
  - Crystal arthritis  
  - The spondyloarthropathies  
  - Lyme disease  
  - The vasculitis                                                                                                  |
| Asthma                       |  
  - Assess the severity of an asthma attack  
  - Discuss guidelines for management of asthma  
  - Recognize the patterns of asthma and contributing factors  
  - Determine the complications of long-term use of medications for asthma  
  - Institute age-appropriate individualized management plan for asthma  
  - Teach patients how to use a peak flow meter and a diary  
  - Teach and assess inhaler techniques                                                                            |
| Lower respiratory tract infection | Discuss the causes of respiratory tract infections and recurrent infection  
  - Recognize the indicators of severity  
  - Determine when patients require intensive care  
  - Discuss how to manage these infections  
  - Recognize complications and manage them appropriately                                                      |
| Chronic obstructive pulmonary disease |  
  - Assess the severity of a COPD attack  
  - Institute an appropriate management plan  
  - Encourage smoking cessation                                                                                     |
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<tr>
<th>Topic</th>
<th>Learning outcomes</th>
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<tbody>
<tr>
<td>Chest pain</td>
<td>Take an adequate history to make a specific diagnosis (acute vs chronic chest pain)</td>
</tr>
<tr>
<td></td>
<td>Begin timely treatment</td>
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<td></td>
<td>Acute coronary syndrome (Types, diagnostic approach, and management of acute cardiac chest pain in primary healthcare)</td>
</tr>
<tr>
<td></td>
<td>ECG in the Evaluation and Management of Acute Coronary Syndrome</td>
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<td>Approach patient with cardiovascular emergencies in primary healthcare (pericarditis, myocarditis, endocarditis, etc.)</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>Diagnosis and management of patient with heart failure</td>
</tr>
<tr>
<td>Arrhythmia</td>
<td>Approach patients with arrhythmias:</td>
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<tr>
<td></td>
<td>Tachyarrhythmia</td>
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<td>Supraventricular</td>
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<td>Bradyarrhythmia</td>
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<td>Thyroid and parathyroid diseases</td>
<td>Approach patient with:</td>
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<tr>
<td></td>
<td>Hypothyroidism and subclinical hypothyroidism</td>
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<td>Hyperthyroidism, thyroid nodules and goiter</td>
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<td></td>
<td>Management of thyroid storm in primary health care</td>
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<td></td>
<td>Thyroid cancer, types and diagnosis</td>
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<td>Hyperparathyroidism and hyperparathyroidism</td>
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<td>Pituitary and adrenal disease</td>
<td>Approach patient with:</td>
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<tr>
<td></td>
<td>Hyperprolactinemia</td>
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<td></td>
<td>Adrenal insufficiency</td>
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<td>Hyperkalemia and hyperkalemia in Primary health care</td>
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<tr>
<td>Dysuria</td>
<td>Use history and dipstick urinalysis to determine if the patient has an uncomplicated urinary tract infection</td>
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<tr>
<td></td>
<td>Consider etiologies of dysuria not related to urinary tract infection (e.g., prostatitis, vaginitis, sexually transmitted disease, chemical irritation)</td>
</tr>
<tr>
<td>Dyspepsia</td>
<td>To differentiate, by history and physical examination, between conditions presenting with dyspepsia (e.g., gastro-esophageal reflux disease, gastritis, ulcer, cancer)</td>
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<td></td>
<td>Ask about and examine the patient for worrisome signs/symptoms (e.g., gastrointestinal bleeding, weight loss, dysphagia)</td>
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### 5. Pediatric

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<tr>
<th>Topic</th>
<th>Learning outcomes</th>
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</thead>
</table>
| **Jaundice** | Approach, management and follow-up of patient with following conditions:  
- Infective viral hepatitis  
- Cholestatic jaundice (bile outflow obstruction)  
- Jaundice in the infant |
<table>
<thead>
<tr>
<th>Topic</th>
<th>Learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyspepsia in children</td>
<td>Screen approach, management and follow-up of patient with Gastro-oesophageal reflux</td>
</tr>
<tr>
<td>Topic</td>
<td>Learning outcomes</td>
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<tr>
<td>Intellectual disabilities</td>
<td>Approach and follow-up of patient with following conditions:</td>
</tr>
<tr>
<td></td>
<td>1. Cerebral palsy</td>
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<td>2. Down syndrome</td>
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<td>3. Fragile X syndrome</td>
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<td>4. Prader–Willi syndrome</td>
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<td>5. Williams syndrome</td>
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<td>6. Specific learning disabilities</td>
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<td>7. Dyslexia</td>
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<td>8. Autism spectrum disorders</td>
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<tr>
<td>Growth and puberty problems</td>
<td>Approach, management and follow-up of patient with following conditions:</td>
</tr>
<tr>
<td></td>
<td>1. Short stature</td>
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<td>2. Tall stature</td>
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<td>3. Growing pains (benign nocturnal limb pain)</td>
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<td>4. Delayed puberty</td>
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<td>5. Precocious puberty</td>
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<td>6. Premature thelarche</td>
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<td></td>
<td>7. Premature adrenarche</td>
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<td></td>
<td>8. Pubertal breast hyperplasia</td>
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<tr>
<td>Cough</td>
<td>Approach, management and follow-up of patient with following conditions:</td>
</tr>
<tr>
<td></td>
<td>1. Bronchiolitis</td>
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<td></td>
<td>2. Bronchitis</td>
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<td>3. Acute bronchitis</td>
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<td>4. Chronic bronchitis</td>
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<tr>
<td></td>
<td>5. Breath-holding attacks</td>
</tr>
<tr>
<td>Abdominal pain in children</td>
<td>Approach, management and follow-up of patient with following conditions:</td>
</tr>
<tr>
<td></td>
<td>1. Intussusception</td>
</tr>
<tr>
<td></td>
<td>2. Mesenteric adenitis</td>
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<td></td>
<td>3. Recurrent abdominal pain</td>
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<tr>
<td>Diarrhea</td>
<td>Determine hydration status</td>
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<td></td>
<td>Treat dehydration appropriately</td>
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<td>Pursue investigation in a timely manner</td>
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<tr>
<td>Infantile colic</td>
<td>Approach patient with infantile colic</td>
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<td></td>
<td>Appropriate management and advices</td>
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</tbody>
</table>
### 6. ENT

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<th>Topic</th>
<th>Learning outcomes</th>
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</table>
| Approach to limping child    | * Formulate differential diagnosis of a limp at different ages and clinical presentations  
                                 * Determine when to refer for a specialist opinion  
                                 * Distinguish between inflammatory and non-inflammatory conditions  |
| Failure to thrive and        | * Differentiate between the different causes of malnutrition, including organic and non-organic causes  
                                 * Define how to assess nutritional status  
                                 * Discuss when to initiate investigations to establish the diagnosis and detect nutritional deficiencies and initiate management with dietetic support  
                                 * Recognize the role of the dietician and liaise appropriately  
                                 * Recognition and follow-up of milestone  |
| Developmental delay          |                                                                                                                                                  |

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<tr>
<th>Topic</th>
<th>Learning outcomes</th>
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</table>
| Rhinitis                     | Approach, management and follow-up of patient with following conditions:  
                                 1. Acute URTI rhinitis  
                                 2. Rhinitis medicamentosa  
                                 3. Vasomotor rhinitis  |
| Deafness and hearing loss    | Approach, management and follow-up of patient with following conditions:  
                                 1. Deafness in children  
                                 2. Otosclerosis  
                                 3. Noise-induced hearing loss  
                                 4. Presbycusis  
                                 5. Audiogram and Tympanogram reading and analysis  |
| Neck lumps                   | Approach, management and follow-up of patient with following conditions:  
                                 1. Sternomastoid tumor/fibrosis  
                                 2. Thyroglossal cyst  
                                 3. Lymphatic malformation/cystic hygroma  
                                 4. Cervical lymphadenopathy  
                                 5. Mycobacterium lymphadenitis  |
<table>
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<tr>
<th>Topic</th>
<th>Learning outcomes</th>
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</thead>
</table>
| **Children: Ear, nose, face and oral cavity** | Approach, management and follow-up of patient with following conditions:  
1. Prominent bat/shell ears  
2. Facial deformity  
3. External angular dermoid  
4. Cleft lip and cleft palate  
5. Nasal disorders  
6. Tongue tie  
7. Pre-auricular sinus  
8. Branchial sinus/cyst/fistula |
| **Bell’s (facial nerve) palsy**            | ★ Approach, management and follow-up of patient with Bell’s palsy                                                                                   |
| **Dizziness**                              | ★ Distinguish between vertigo, BPPV, Meniere disease, labyrinthitis, migrainous vertigo, presyncope and syncope  
★ Rule out serious cardiovascular, cerebrovascular, and other neurologic diseases  
★ Investigate further those patients with warning findings |
| **Ear pain**                               | Diagnosis and management of patients with:  
1. Otitis media in children  
2. Otitis media in adults  
3. Otitis externa  
4. Furunculosis  
5. Perichondritis  
6. Infected earlobe  
7. Otic barotrauma |
### 7. Ophthalmology

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<th>Learning outcomes</th>
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### 8. Dermatology

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<th>Topic</th>
<th>Learning outcomes</th>
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<tbody>
<tr>
<td><strong>Skin cancer</strong></td>
<td>Approach, management and follow-up of patient with following conditions:</td>
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<tr>
<td></td>
<td>1. Basal cell carcinoma</td>
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<td>2. Squamous cell carcinoma</td>
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<td></td>
<td>3. Bowen’s disorder (intradermal carcinoma)</td>
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<td></td>
<td>4. Malignant melanoma</td>
</tr>
</tbody>
</table>

**Children’s eye conditions**

- Approach, management and follow-up of patient with following conditions:
  1. Strabismus (squint)
  2. Amblyopia
  3. Blocked nasolacrimal duct

**Conjunctivitis**

- Approach, management and follow-up of patient with following conditions:
  1. Bacterial conjunctivitis
  2. Viral conjunctivitis
  3. Primary herpes simplex infection
  4. Allergic conjunctivitis
  5. Chlamydia trachomatis conjunctivitis (trachoma)

**Red eye and visual impairment**

- Take an appropriate history (e.g., photophobia, changes in vision, history of trauma)
- Conduct a focused physical examination (e.g., pupil size, and visual acuity, slit lamp, fluorescein) to distinguish between serious causes (e.g., keratitis, glaucoma, perforation, temporal arteritis) and non-serious causes (i.e., do not assume all red eyes are caused by conjunctivitis)
- Approach patient with eyelid problems
- Approach to elderly patient with vision impairment (cataract and glaucoma)
<table>
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<th>Topic</th>
<th>Learning outcomes</th>
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</thead>
</table>
| **Skin eruptions** | Approach, management and follow-up of patient with following conditions:  
1. Acute skin eruptions in children  
2. Secondary syphilis  
3. Primary HIV infection  
4. Guttate psoriasis  
5. Drug eruptions  
6. Erythema multiforme  
7. Erythema nodosum  
8. Hand, foot and mouth disease |
| **Nail disorders** | Approach, management and follow-up of patient with following conditions:  
1. Onycholysis  
2. Onychomycosis  
3. Onychogryphosis  
4. Brittle nails  
5. Nail apparatus melanoma  
6. Paronychia  
7. In grown toenails  
8. Subungual hematoma |
| **Hair disorders** | Approach, management and follow-up of patient with following conditions:  
1. Androgenic alopecia  
2. Alopecia areata, alopecia totalis and alopecia universalis  
3. Scarring alopecia  
4. Telogen effluvium  
5. Anagen effluvium  
6. Trichotillomania (hair pulling)  
7. Hair disorders in children  
8. Hirsuties  
9. Hypertrichosis  
10. Dry hair  
11. Oily hair |
| **Herpes simplex** | Approach, management and follow-up of patient with following conditions:  
1. Herpes labialis  
2. Genital herpes  
3. Eczema herpeticum  
4. Herpetic whitlow  
5. Herpes simplex keratitis  
6. Herpes zoster (shingles): postherpetic neuralgia |
<table>
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<tr>
<th>Topic</th>
<th>Learning outcomes</th>
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</thead>
</table>
| **Tinea infections**| Approach, management and follow-up of patient with following conditions:  
1. Tinea capitis  
2. Tinea cruris (jock itch)  
3. Tinea pedis (athlete’s foot)  
4. Tinea of toenails and fingernails (tinea unguium)  
5. Tinea corporis  
6. Tinea incognito  
7. Intertrigo  
8. Groin rash  
9. Candida intertrigo  
10. Erythrasma |
| **Acute allergic reactions** | Approach, management and follow-up of patient with following conditions:  
1. Anaphylaxis and anaphylactic reactions  
2. Angioedema and acute urticaria |
| **Skin rash**        | • Describe skin rash accurately  
• Differentiate between and recognize the cutaneous and mucosal manifestations of systemic disease  
• Recognize the serious nature of some skin disorders or their associated conditions  
• Discuss the different potencies of topical steroids and their side effects  
• Identify the indications for and the procedure involved in skin biopsy  
• Recognize when to refer to specialists for further management of skin diseases |
| **Common dermatology problem** | Diagnosis and treatment of common dermatological conditions:  
1. Acne  
2. Dermatitis  
3. Warts  
4. folliculitis  
5. Lichen plans  
6. Alopecia  
7. Rosacea |
### 9. Orthopedic and musculoskeletal (MSK)

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<th>Topic</th>
<th>Learning outcomes</th>
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</table>
| **Knee pain** | Approach, management and follow-up of patient with following conditions:  
1. Osgood-Schlatter disorder  
2. Chondrocalcinosis of knee (pseudogout)  
3. Meniscal tears  
4. Anterior cruciate ligament rupture  
5. Medial collateral ligament rupture  
6. Patellofemoral pain syndrome  
7. Patellar tendinopathy (‘jumper’s knee’)  
8. Localized tendinopathy or bursitis  
9. Osteoarthritis |
| **Hip pain** | Approach, management and follow-up of patient with following conditions:  
1. Developmental dysplasia of the hip (DDH)  
2. Perthes’ disease  
3. Transient synovitis  
4. Slipped capital femoral epiphysis  
5. Septic arthritis |
| **Heel pain** | Approach, management and follow-up of patient with following conditions:  
1. Achilles tendon bursitis  
2. Plantar fasciitis  
3. Achilles tendinopathy/peritendonitis  
4. Partial rupture of Achilles tendon  
5. Complete rupture of Achilles tendon |
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<th>Topic</th>
<th>Learning outcomes</th>
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</table>
| **Arm and hand pain** | Approach, management and follow-up of patient with following conditions:  
1. Pulled elbow  
2. Tennis elbow  
3. Olecranon bursitis  
4. Trigger finger/thumb  
5. Raynaud’s phenomenon and disorder  
6. Chilblains  
7. Carpal tunnel syndrome |
| **Low-back pain** |  
- Make a positive diagnosis of musculoskeletal pain through an appropriate history and physical examination  
- Rule out serious causes (e.g., caudal equine syndrome, pyelonephritis, ruptured abdominal aortic aneurysm, and cancer) through appropriate history and physical examination  
- In all patients with mechanical low back pain, discuss exercises and posture strategies to prevent recurrences |
| **Approach to patient with acute musculoskeletal complaints** | Upper extremity:  
- Rotator cuff impingement and tear  
- Acromioclavicular joint sprain  
- Lateral and medial epicondylitis  
- De Quatrain tenosynovitis  
Lower extremities:  
- Patellofemoral pain syndrome  
- Ligament injuries of the knee  
- Ankle sprain  
- Medial tibial stress syndrome  
- Planter fasciitis |
| **Fractures** |  
- Assess neurovascular status and examine the joint above and below the injury  
- Identify and manage limb injuries that require urgent immobilization and/or reduction in a timely manner.  
- Look for and diagnose high-risk complications (e.g., an open fracture, unstable cervical spine, compartment syndrome) |
## 10. Obstetrics and Gynecology

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<td>Obstetrics care</td>
<td>Basic antenatal care</td>
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<td>Management of specific issues:</td>
</tr>
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<td>1. Pregnancy sickness</td>
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<td>2. Cramps</td>
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<td>3. Varicose veins</td>
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<td>4. Mineral supplements in pregnancy</td>
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<td>5. Pregnancy-induced hypotension</td>
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<td></td>
<td>6. Pregnancy-induced hypertension</td>
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<td>7. Physiological breathlessness of pregnancy</td>
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<td>8. Acute cystitis</td>
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<td>Transmissible infections in pregnancy</td>
<td>1. Rubella</td>
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<td></td>
<td>2. Varicella (chickenpox)</td>
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<td>3. Parvovirus B-19</td>
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<td>4. Cytomegalovirus</td>
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<td>5. Hepatitis B</td>
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<td>6. Hepatitis C</td>
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<td>7. HIV</td>
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<td>8. Genital herpes</td>
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<td>9. Genital warts</td>
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<td>10. Syphilis</td>
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<td>11. Chlamydia/gonorrhea</td>
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<td>Postnatal care</td>
<td>1. After pains</td>
</tr>
<tr>
<td></td>
<td>2. Oral contraception</td>
</tr>
<tr>
<td></td>
<td>3. Insufficient milk supply</td>
</tr>
<tr>
<td></td>
<td>4. Engorged breasts</td>
</tr>
<tr>
<td></td>
<td>5. Lactation suppression</td>
</tr>
<tr>
<td></td>
<td>6. Nipples (cracked and sore)</td>
</tr>
<tr>
<td></td>
<td>7. Postnatal depressive disorders</td>
</tr>
<tr>
<td></td>
<td>8. Postpartum hypothyroidism</td>
</tr>
<tr>
<td></td>
<td>9. Hair loss</td>
</tr>
<tr>
<td>Topic</td>
<td>Learning outcomes</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Pregnancy                    | * Recommend appropriate changes before pregnancy (e.g., folate acid intake, smoking cessation, medication changes)  
* In a patient presenting with a confirmed pregnancy for the first encounter, assess maternal risk factors (medical and social), establish accurate dates, and advise the patient about ongoing care  
* Identify and refer high-risk patients to appropriate resources throughout the antepartum and postpartum periods  
* Approach and management of pregnant lady with gestational diabetes and preeclampsia and eclampsia  
* Identify the ectopic pregnancy, signs, and symptoms and proper management  
* Identify the types of abortion, signs, and symptoms and proper management  
* Identify the types of placenta conditions (placenta abruption, placenta Previa), signs, and symptoms and proper management |
| Family planning              | * Family planning counseling and the choose of appropriate contraception methods (OCP, IUCD and other types of contraception) |
11. Geriatric and palliative care

<table>
<thead>
<tr>
<th>Topic</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infertility</td>
<td>- Assess couples for primary and secondary infertility</td>
</tr>
<tr>
<td></td>
<td>- Initiate investigations at level of FM to establish the common causes of infertility</td>
</tr>
<tr>
<td></td>
<td>- Provide appropriate referral and follow-up</td>
</tr>
<tr>
<td>Menopause</td>
<td>- Screen for symptoms of menopause and (e.g., hot flashes, changes in libido, vaginal dryness, and incontinence)</td>
</tr>
<tr>
<td></td>
<td>- Explore other therapeutic options and recommend some appropriate choices</td>
</tr>
<tr>
<td></td>
<td>- Provide counseling about preventive health measures (e.g., osteoporosis testing, mammography, etc.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palliative care</td>
<td>- Use the principles of palliative care to address common end of life symptoms (e.g., dyspnea, pain, constipation, nausea)</td>
</tr>
<tr>
<td></td>
<td>- Identify the individual issues important to the patient, like emotional issues, social issues (e.g., guardianship, wills, finances), and religious issues</td>
</tr>
<tr>
<td>Common geriatric problem</td>
<td>Approach, management and follow-up of patient with following conditions:</td>
</tr>
<tr>
<td></td>
<td>1. Tension tremor</td>
</tr>
<tr>
<td></td>
<td>2. Parkinson disease</td>
</tr>
<tr>
<td></td>
<td>3. Elder abuse</td>
</tr>
<tr>
<td></td>
<td>4. Fall-risk assessment</td>
</tr>
<tr>
<td>Topic</td>
<td>Learning Outcomes</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Dementia and Alzheimer's disease</td>
<td>☐ Use the Mini-Mental State Examination and other measures of impaired cognitive function</td>
</tr>
<tr>
<td></td>
<td>☐ Take a careful history and physical examination, to make an early diagnosis</td>
</tr>
<tr>
<td></td>
<td>☐ Select proper laboratory investigations and neuroimaging techniques to complement the history and physical findings</td>
</tr>
<tr>
<td></td>
<td>☐ Assess the needs of and support required by caregivers of patients with dementia</td>
</tr>
</tbody>
</table>
### Second: Examples of Core Specialty Skills/Procedures for the Weekly Academic Day Activities.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Skills and procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine</td>
<td>1. Communication skills</td>
</tr>
<tr>
<td></td>
<td>2. Dealing with a difficult patient</td>
</tr>
<tr>
<td></td>
<td>3. Breaking bad news</td>
</tr>
<tr>
<td></td>
<td>4. Presentation skills</td>
</tr>
<tr>
<td></td>
<td>5. EBM</td>
</tr>
<tr>
<td></td>
<td>6. Critical appraisal and how to form a journal club</td>
</tr>
<tr>
<td></td>
<td>7. Clinical teaching and learning strategy</td>
</tr>
<tr>
<td></td>
<td>8. Medical ethics, malpractice and patient safety</td>
</tr>
<tr>
<td></td>
<td>9. Total quality management</td>
</tr>
<tr>
<td></td>
<td>10. Management skills</td>
</tr>
<tr>
<td></td>
<td>11. Writing scientific papers</td>
</tr>
<tr>
<td></td>
<td>12. Medication safety practice</td>
</tr>
<tr>
<td></td>
<td>13. Child safety and environmental hazards</td>
</tr>
<tr>
<td></td>
<td>14. Child psychiatry and learning disabilities</td>
</tr>
<tr>
<td></td>
<td>15. Stress coping and management</td>
</tr>
<tr>
<td></td>
<td>16. End of life care</td>
</tr>
<tr>
<td></td>
<td>17. Smoking cessation</td>
</tr>
<tr>
<td></td>
<td>18. Premarital counseling</td>
</tr>
<tr>
<td></td>
<td>19. Management and Leadership</td>
</tr>
<tr>
<td></td>
<td>20. Prevention and promotion</td>
</tr>
<tr>
<td></td>
<td>22. Occupational medicine</td>
</tr>
<tr>
<td></td>
<td>23. School health</td>
</tr>
<tr>
<td></td>
<td>24. Environmental health</td>
</tr>
<tr>
<td></td>
<td>25. Nutrition</td>
</tr>
<tr>
<td></td>
<td>26. How to investigate an outbreak</td>
</tr>
<tr>
<td></td>
<td>27. Reflow check for blood glucose measuring</td>
</tr>
<tr>
<td></td>
<td>28. X-ray reading and interpretation</td>
</tr>
<tr>
<td></td>
<td>29. Passing the MCQs</td>
</tr>
<tr>
<td></td>
<td>30. Objective Structured Clinical Examination (OSCE) preparation</td>
</tr>
<tr>
<td>Cardiovascular procedures</td>
<td>1. ECG application, reading and analysis</td>
</tr>
<tr>
<td></td>
<td>2. Perform defibrillation or cardioversion</td>
</tr>
<tr>
<td></td>
<td>3. Perform CPR (BLS and ACLS)</td>
</tr>
<tr>
<td>ENT procedures</td>
<td>1. Anterior and posterior nasal packing</td>
</tr>
<tr>
<td></td>
<td>2. Cerumen removal</td>
</tr>
<tr>
<td></td>
<td>3. Foreign body removal (ear, nose)</td>
</tr>
<tr>
<td></td>
<td>4. Audiogram and tympanogram reading and analysis</td>
</tr>
</tbody>
</table>

**Notes:**
- Family Medicine
- Cardiovascular procedures
- ENT procedures
<table>
<thead>
<tr>
<th>Topic</th>
<th>Skills and procedures</th>
</tr>
</thead>
</table>
| **Gastrointestinal procedures** | 1. Perform endoscopic and proctoscopic examination  
2. Enucleate external hemorrhoids  
3. Place nasogastric tube  
4. Perform paracentesis of abdomen  
5. Test for fecal occult blood |
| **Genitourinary procedures**  | 1. Genital examination  
2. Digital rectal examination for prostate  
3. Placement of transurethral catheter (men)  
4. Placement of transurethral catheter (women)  
5. Placement of suprapubic catheter  
6. Urine dipstick and microscopy analysis |
| **Gynecology procedures**     | 1. Breast lump examination  
2. Perform Pap Smear  
3. Perform endometrial biopsy  
4. Perform vaginal swab  
5. Intrauterine contraceptive device insertion and removal  
6. Diaphragm fitting  
7. Injectable long-term contraception |
| **Obstetrics procedures**     | 1. Obstetrics ultrasound  
2. Apply fetal scalp electrode  
3. Perform artificial rupture of membrane  
4. Perform vaginal delivery (spontaneous, forceps, or vacuum assisted)  
5. Perform episiotomy |
| **Neurology procedure**       | 1. Perform lumbar puncture (adult)  
2. Perform lumbar puncture (infant and child) |
| **Ophthalmology procedures**  | 1. Perform slit lamp examination  
2. Instill fluorescein dye for corneal abrasion  
3. Remove corneal foreign body |
| **Orthopedic procedures**     | 1. Splinting and techniques of immobilization of sprained joints and fractures  
2. Aspiration and injections of joints (e.g., shoulder and knee joints)  
3. Close reduction of joint dislocation |
| **Respiratory procedures**    | 1. Demonstrate peak flow measurement and inhaler techniques  
2. Chest tube insertion  
3. Intubation (adult and pediatrics)  
4. Perform thoracentesis |
P.S.: The procedures in WADA should be covered at least once in the 3 years FM educational activities.

**Orientation Activities**

A two-week orientation course should be taken at the beginning of the FM residency. The course can be taken as a stand-alone course or merged within the FM Module 1.

**Contents:**
- Introduction to the FM residency program
- Training objectives and contents
- SCFHS- rules and regulations
- Healthcare institution: rules and regulations
- Hospital rotations
- FM rotations
- Training sites
- Meeting with the senior residents (Questions and Answers)
- Meeting with the training director and trainers
- Principles and Characteristics of FM
- Medical Educational and Continuous Professional Development
- Consultation and Communication Skills
- Quality Improvement and Patient Safety Essentials
- Ethics and Professionalism
Volunteering:

The family physician has always been the gate keeper for the community to visit healthcare facilities. A competent family physician will work efficiently as a coordinator of healthcare services between the different specialties at the hospital (secondary and tertiary levels of healthcare) and the public.

To work effectively as an advocate for your community, and as the most efficient health-related link between the community and the hospital, the family physician must understand the perspectives and preferences of community members. The FM program curriculum requires community service volunteering (mostly health-related) that exposes the FM resident to a variety of community healthcare aspects.

Objective:

As a mandatory part of the SaudiMED-FM 2020, 60 hours of volunteering activities are required from every resident to foster community awareness.

Process:

- Work through recognized volunteering institutions (see examples below).
- Acquire the pre-approval of the clinical supervisor and the program director (see Appendix).
- Accumulate 60 accredited hours of volunteering work (i.e., extracurricular activities outside working hours), either continuously or interrupted during any time of the residency program.
- Provide documents of evidence (letters/certificates) as a prerequisite to being issued a training completion certificate

Volunteer examples

- Hajj/ Umrah Campaign.
- Health education campaigns for the public.
- Mass media awareness campaigns.
- Mobile clinics for remote and rural areas.
- Mobile blood donations campaigns.
- Vaccination campaigns.
- Family or children with special needs associations.
- Any charity committee.
- Health promotion campaigns.
- Health prevention campaigns.
- Others healthcare-related.
Research Activity:

EBM and research methodology activities should be incorporated in the program academic schedule from R1 to R3. Residents are required to submit a full research proposal by the end of R2.

Successful completion of a research proposal is a prerequisite to sit for R2 promotion exams.

The FM program has the right to raise the research requirement for the submission of a full-research thesis, which should be submitted before finishing R3 in the residency program. If said requirements are increased, a maximum of 4 weeks of elective, research rotations can be provided to residents to complete their manuscripts. When residents wish to conduct a full research thesis, their requests should be encouraged and supported.

Objectives:

By the end of the research course, residents will be able to:

1. Know the principles and clinical implications of EBM
2. Extrapolate results from research and apply them to clinical practice
3. Know the fundamentals of research types and research methodology
4. Write a research proposal for medical research
5. Plan and execute medical research
6. Critically evaluate research

Course contents:

<table>
<thead>
<tr>
<th>Evidence Based Medicine</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of evidence-based health practice (EBHP)</td>
<td>Select an appropriate research project in relation to the FM or community healthcare problem</td>
</tr>
<tr>
<td>Search skills</td>
<td>Formulate a research question</td>
</tr>
<tr>
<td>Critical appraisal of different types of evidence</td>
<td>Prepare a background statement concerning the problem selected for study and writing the research protocol</td>
</tr>
<tr>
<td>Information Mastery</td>
<td>Develop research objectives and hypotheses</td>
</tr>
<tr>
<td>Understanding statistics of EBHP</td>
<td>Prepare a literature review relevant to the problem</td>
</tr>
<tr>
<td>Knowledge translation</td>
<td>Develop a research design and methodology</td>
</tr>
<tr>
<td>Applying evidence and changing one’s own practice</td>
<td>Write a protocol/proposal for medical research</td>
</tr>
</tbody>
</table>

Research supervisors

- Supervisors should have sufficient experience in research or publications (should preferably have published papers in peer-reviewed journals).
- Supervisors should hold a Saudi Board or equivalent certificate in family or community medicine/public health.
Residents will be allowed to choose their supervisors; however, the program director will finalize the assignments, ensuring fair distribution.

Supervisors’ performance will be reviewed within two months of assignment by the program director, and if there are major issues, the residents will be assigned to another supervisor.

The supervisor is responsible for the following:

1. Reviewing and approving the research proposal and timeline made by the resident.
2. Regularly supervising residents according to the timeline (once per month/resident).
3. Documenting all supervision sessions in the Research Progress Form. (see appendix)
4. Reporting all supervision sessions to the research committee.
5. Reviewing and approving the final copy of the proposal and manuscript
6. Signing the research submission letter stating that the research was conducted under his/her supervision and guidance
7. Participating in the evaluation of proposals and research papers submitted to the research committee if required
8. Attending the annual research day

Role of the resident

The resident is responsible for preparing and conducting research within the time frame specified by the program and for following up with his/her supervisor and departmental research unit. He/she should report any difficulties encountered to the program director or his deputy.

Selecting the research topic: Select a research topic with the guidance of his/her supervisor

Proposal: Prepare, finalize, and submit the proposal to his/her supervisor for approval

Conducting research and writing the manuscript: Conduct the fieldwork (data collection, data entry, etc.) and perform all other research tasks (data entry, analysis, and manuscript writing) with the help and guidance of his/her supervisor/research unit submit the final draft of the research on time

Budget: Ensure the reimbursement of the research expenses

Topic selection:

In selecting a topic for research, the research committee, supervisors, and residents should consider the following important points (FINER):

F- Feasible. Is the question answerable? Do you have access to all the materials you will need to conduct the study? Do you have access to enough participants? Will you have enough time and money? Do you have the expertise to do this study or can you collaborate with someone who does?
有趣的。

N- 新颖。这项研究是否在之前已经进行过？它是否增加了当前医学知识？

E- 道德。这项研究是否可以在不给参与者带来额外风险的情况下进行？一个机构审查委员会将批准这项研究？

R- 重要。它将进一步医学科学吗？将结果改变临床实践或健康政策或指明进一步研究的途径？

联合研究

联合研究（超过一名住院医师）应受到鼓励，并可以在以下条件下进行（在研究委员会批准后）：

- 大型国家研究项目
- 多个部门或在不同地区跨越王国的项目
- 元分析或系统综述

书写过程：

- 研究论文应以英语准确撰写和编辑，无语法或拼写错误，包含阿拉伯语和英语摘要（摘要不应超过300字）
- 封面应包含以下内容：
  1. 培训项目的名称
  2. 研究的标题
  3. 研究者的姓名
  4. 研究提交日期
  5. 以下声明："这项研究是在完成沙特家庭医学委员会部分的履行中提交的。

- 第二页应包含监督者的姓名。
- 论文应以白色A4纸张用黑色墨水印刷，每页一面。
- 样式应如下面的样式表所示。
- 最后一页应包含研究者简短的简历。
Leaves:

Per the Saudi Commission Rules and Regulations, residents in the FM program receive 4 weeks of leave annually, one week of study leave, and one week of Eid leave. All leaves require the program director’s approval. The study leave is incorporated within the program rotations, without specifying a dedicated time for it in the program structure. The resident must physically attend at least 75% of the total duration of any clinical rotation to fulfill the rotation requirements and be eligible for ITER evaluation.
Recommended References

Introduction

The SaudiMED-FM 2020 comprises a three-year competency-based curriculum. The concentration of the curriculum mandate providing slandered references to guide residents in their journey of mastering the required competencies. This section provides a list of references that residents need to read to be competent and to pass SCFHS’ final exams. The resources will be provided as books, national guidelines, international guidelines, and web sites.

At the individual level – Faculty members or residents; can pick favorites and choose to load as bookmarks or sign up for regular updates on specific sites, etc.

At the team level – We recommend that residents read the references listed below to support their care approach and help standardize our approach among teachers and across sites.

At the discipline level – To support trainers and to provide guidance for Faculty Development on important resources

For exam preparation – The listed books and online references should cover at least 70% of the knowledge required to pass written assessments in the FM Saudi board exams. This approach may help and reduce the overwhelming large number of references. However, the selection of reference must match the learner level and cover the curriculum contents for each level. Newly released national or international guideline within six months or less from the date of the exam will not be included.

Recommended textbooks

- Text Book of Family Medicine, 9th ed. by Robert E. Rakel, MD
- CURRENT Diagnosis and Treatment in Family Medicine, 4th ed. (Lange) 4th Edition
- Family Medicine: Principles and Practice, by Robert B. Taylor
- McWhinney’s Textbook of Family Medicine, 4th ed. 2016
- The Color Atlas and Synopsis of Family Medicine, 3rd ed.

Recommended scientific websites and guidelines

- ADA: http://www.diabetes.org/
- American Family Physician: https://www.aafp.org/journals/afp.html
- ICD 11: https://icd.who.int/
- Joint National Committee (JNC): https://sites.jamanetwork.com/jnc8/
The United States Preventive Services Task Force: https://www.uspreventiveservicestaskforce.org/Page/Name/recommendations

CDC: https://search.cdc.gov/search/?query=immunization&sitelimit=&utf8=%E2%9C%93&affiliate=cdc-main

**Other (i.e., non-essential) resources for further reading**

(but not included in the recommended resources)

- SCFHS medical database: https://scfhs.ac-knowledge.net/main-page
- Best advice guides: www.patientsmedicalhome.ca
- Research guide: http://libguides.usc.edu/writingguide/purpose
- EBM: https://www.cebm.net/2014/06/critical-appraisal/
Chapter Four:
Teaching and Learning in FM Program
Introduction

The FM residency program is a three-year competency based-curriculum where the trainer and resident will use different strategies to teach and learn various knowledge and skills throughout the program.

This chapter will highlight different methods and strategies that might enhance teaching and learning in diverse settings to guide trainers and residents. It addresses the essential elements necessary for the practical preparation, implementation, and facilitation for teaching and learning, which focus on the competencies needed for mastery.

In addition, it identifies opportunities for teaching and enabling learning in everyday clinical practice, and it informs how to apply some of the major theories of learning and teaching from higher education and healthcare contexts to teaching practice, how to utilize a comprehensive range of teaching methods, and how to develop a reflective approach in teaching and learning that can be utilized in continued professional development. Teaching and learning can be done through the clinic, inpatient wards, ER, simulation lab, academic activities in the rotation, and in the weekly academic day1.

Other practices that may enhance residents’ learning and professional development are implementing the mentorship program and reflective practice in the postgraduate FM curriculum. To standardize the method of training among different training centers, and it can be a requirement in the portfolio.

Clinical Teaching

Clinical teaching is a mode of interactive communication between two individuals, involving an educator and a learner around patient encounters to achieve a specific task2.

Teaching FM residents in the clinic presents the challenges of providing appropriate patient care, maintaining efficiency, and incorporating meaningful education for residents. Numerous teaching strategies to address these challenges have been described in medical education literature.

Clinical teaching includes several techniques such as providing role modeling, constructive feedback, fostering a safe learning environment, enhancing self-reflection, and promoting learning by continual patient involvements3.

Teaching strategies in the clinical settings

A- Activated demonstration

1. Assess student’s relevant knowledge
2. Determine what the student should learn from the skill demonstration
3. Guidance for student participation during skill demonstration
4. Demonstrate the clinical skill
5. Discuss learning points with the student
6. Set an agenda for future learning opportunities

B- One-minute perceptor (OMP)

1. Get a commitment
2. Probe for supporting evidence
3. Teach general rules
4. Reinforce what was done right
5. Correct mistakes

C- SNAPPS

1. Summarize relevant history and physical findings
2. Narrow the differential: Likely, Relevant.
3. Analyze the differential
4. Probe the preceptor
5. Plan patient management
6. Select a case-related learning issue
### Cognitive apprenticeship model in a clinical settings

<table>
<thead>
<tr>
<th>Apprenticeship skills</th>
<th>Definition</th>
<th>Trainer role</th>
<th>Resident role</th>
<th>Target resident/timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Modeling</strong></td>
<td>Centralized around the expression of experts’ thinking process to clarify the reasoning process that justifies experts’ decision making and action</td>
<td>Showing and justifying procedures and skills to their learners</td>
<td>Students are observing and building a conceptual model of the observed skills. Students remember this when new skills or subjects are introduced.</td>
<td>Junior (R1) or residents never perform the task. During or after consultation</td>
</tr>
<tr>
<td><strong>Coaching</strong></td>
<td>Coaching is aiming to improve the learners’ performance by shifting the learner from observing a task performance to performing a task with support from the expert as needed</td>
<td>1- Educators observe learners and offer certain feedback on resident execution. 2-Offering hints, help during task performance, redirecting, and giving feedback as needed. 3- Allow the learner to repeat the task under different complexity levels</td>
<td>Perform the task</td>
<td>Junior (R1/2) or residents who has to repeat task/similar task with more complexity. During and after consultation</td>
</tr>
<tr>
<td><strong>Articulation</strong></td>
<td>The articulation techniques are aimed to enable learners to articulate and formulate the learned knowledge toward problem-solving</td>
<td>To ask and motivate the residents to stimulate cognition and express their knowledge, understanding, clinical reasoning and problem-solving skills.</td>
<td>Express while performing the task</td>
<td>Senior (R 3) perform the Complex task</td>
</tr>
<tr>
<td><strong>Exploration</strong></td>
<td>Reflect on the conceptual model in which a continuous skill is improved by observation and feedback which build learners’ autonomy in problem-solving skills</td>
<td>During the reflection, process educators facilitate learners to compare their problem-solving skills, at macro and micro levels. This comparison motivates learners to reflect on their strengths and weaknesses and progressively improve their skills until they obtain mastery. -Facilitate self-monitoring -Allow performance correction -Support defining their learning needs</td>
<td>Perform the task</td>
<td>Senior (R 3) residents perform the complex task usually after consultation</td>
</tr>
</tbody>
</table>
Simulation in medical education

Medical simulation has been found to enhance postgraduates’ clinical psychomotor skills. It is also linked to improving patients’ safety and reducing healthcare costs through the improvement of medical providers’ competencies. It fosters the acquisition of clinical skills through reflective practice rather than traditional apprentice style. Simulation tools provide an alternative method to real patients as residents can make mistakes and learn to correct their practice with preservation of patient safety. There are several types and classification of simulators, and their price varies according to their simulation to the reality, or “fidelity.”

Using the simulation lab in WADA to enhance the skills required from family physicians, trainers must be aware of the importance of the simulation, different kinds of simulators and tasks, and precautionary measures for the simulation session.

Types of simulators

Simulators can be classified according to their resemblance to reality: into low-fidelity, medium-, or high-fidelity simulators.

1. Low-fidelity simulators: Often static and lack the situational context. They are used to teach juniors basics of technical skills, e.g., intravenous insertion arm, suturing kit, pelvic exam, etc.

2. Moderate-fidelity simulators: More resemblance to reality than the low-fidelity variant. Have features such as pulse, heart sounds, and breathing sounds. They lack chest or eye movement and the ability to talk. They are used for introduction and deep understanding of increasingly complex competencies; e.g., the “Harvey” cardiology simulator.

3. High-fidelity simulators: Combine part or whole-body manikins that allow for intervention procedures, and they have computers that drive the manikins to produce physical and physiological signs. They are usually designed to resemble reality. They have features such as talking, breathing, blinking, and responding either automatically or manually to physical and pharmacological interventions; e.g., the METI human patient simulator, which is model driven; and the “Noelle” obstetric simulator, which is instructor-driven.

Delivering the simulation

The trainer should prepare the objectives and the scenario of the simulation in advance and provide a pre-brief at the beginning of the session to facilitate reflective practice by preparing residents for the discussion at the end of their scenario and make them aware of how they will receive their feedback.

Each resident will be assigned to a specific role. During the scenario, the trainer will observe students’ performance and provide feedback.

Debrief and feedback

After completing the individual scenarios, oral feedback will be given to the resident by the trainer and their peers. Group feedback and peer learning are all effective assessments for learning tools.

During the debriefing, residents can discuss any emotions that they had about the simulation scenario as well as reflect on and explore their decision-making processes. Giving oral feedback to residents enables trainers to be flexible with their questioning, allows for an immediate response from the resident, and permits clarification of any misunderstandings.

Advantages of simulation

- Practicing hands-on and invasive procedures
- Continuing and repeated practice
- The ability to allow errors to continue to their natural conclusion
- The risks to patients and learners are avoided
- Undesirable interference is reduced
- The opportunity for the same scenario to be accessed by multiple students providing a similar learning opportunity
- Planning clinical cases based on students’ need, rather than patients’ availability
- Exposure to rare and complex clinical situations
- Immediate feedback during debriefing sessions
- The use of real medical equipment
- Transfer of training from the classroom to the real situation is enhanced
- Retention and accuracy are increased

For further reading

- Simulation in healthcare education: a best evidence practical guide. AMEE Guide No. 82. Medical Teacher
## Template for simulation patient design

<table>
<thead>
<tr>
<th>Case Information Demographic</th>
<th>..........................................................</th>
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<table>
<thead>
<tr>
<th>Learning objectives</th>
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<table>
<thead>
<tr>
<th>Preparation (equipment required)</th>
<th>..........................................................</th>
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|                                 | ..........................................................
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<table>
<thead>
<tr>
<th>Time Duration</th>
<th>..........................................................</th>
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</table>
| Set-up       | ..........................................................
| Preparation  | ..........................................................
| Simulation   | ..........................................................
| Debrief      | ..........................................................

<table>
<thead>
<tr>
<th>Patient history</th>
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<tr>
<th>Laboratory and radiology results</th>
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<tr>
<th>Patient baseline state</th>
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Teaching and Learning Styles in Academic Activity

Trainers and residents may present lectures, workshops, journal reviews, seminars, or case-based learning. All these activities can be conducted with different teaching styles.

<table>
<thead>
<tr>
<th>Teaching and learning style</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Traditional lectures</strong></td>
<td>Traditional lectures can be given to cover the core topics in FM in addition to the principle of FM. It is effective when introducing a new topic. The interactive lecture is superior to one-way lecturing.</td>
</tr>
<tr>
<td><strong>Flipped classroom</strong></td>
<td>Learners are completing pre-classroom “homework,” and classroom time is used for interactive learning and problem-solving. A goal of the flipped classroom is to depart from a passive, teacher-centered approach in favor of learner-centered active learning. This approach supports instructors playing their most important role in guiding their students to <strong>deeper thinking and higher levels of application</strong>.</td>
</tr>
<tr>
<td><strong>Small-group teaching</strong></td>
<td>Small-group teaching is the active involvement of learners in the entire learning cycle, well-defined task orientation with achievable specific aims and objectives in a given time and the reflection based on the experience and deep learning.</td>
</tr>
<tr>
<td><strong>Case-based teaching</strong></td>
<td>With case-based teaching, students develop skills in analytical thinking and reflective judgment by reading and discussing complex, real-life scenarios.</td>
</tr>
</tbody>
</table>

**For further reading**
Self-directed learning

Definition

Self-directed learning is when learners take the initiative in exploring their learning needs, determine their learning goals, identify learning resources, and evaluate learning outcomes with or without the help from a trainer/mentor.

Goal

The main goal is to allow the learners to become lifelong learners who have the following characteristics:

- Consciously responsible for the learning needs and improving and evaluating their practice considering a changed understanding
- Consciously able to discover their KSA gaps and correct them
- Able to self-motivate to generate a learning plan that addresses and overcomes the KSA gaps by using the best available evidence
- Able to allocate suitable learning resources and select them wisely and efficiently
- Able to evaluate their learning efforts including utilizing appropriate resources and their practical effects
- Consciously committed to repeating the self-directed learning cycle with each patient encounter or in other relevant situations1.

Trainers’ roles

- Build a co-operative learning environment
- Help motivate and direct the students’ learning experience
- Facilitate students’ initiatives for learning
- Be available for consultations as appropriate during the learning process
- Serve as an advisor rather than as a formal instructor

Residents’ roles

- Self-assess your readiness to learn
- Define your learning goals and develop a learning contract
- Monitor your learning process
- Take initiative for all stages of the learning process and be self-motivated
- Re-evaluate and alter goals as required during your unit of study
- Consult with your advising instructor as required

Reflective practice

Definition

Reflective practice is a metacognitive process that supports self and situational understanding to enhance one’s ability to respond appropriate in a similar situation in the future\(^1\).

Importance of reflection

Reflective practice has been linked directly to self-regulation and lifelong learning process; moreover, it has been linked to acquiring a therapeutic relationship and professional expertise\(^1\).

Educational strategies to develop reflection

- **Motivation for reflection**
  
  Motivation can be achieved internally by having the ability for self-motivation by self-awareness, and externally by setting clear goals.

- **Metacognitive skills for reflection**
  
  A. **Noticing** by self-monitoring, feedback from others, critical incidents moreover, and significant event analysis
  
  B. **Processing**

    1. Reflection for learning

    The primary process with this intention is to identify learning needs, especially about information to be obtained or new skills to be developed.

    In Kolb’s “experiential learning cycle,” the learner has an experience followed by reflection, abstract conceptualization, and the application of new knowledge and skills\(^2,3\).
2. Reflection to develop professional practice

A process of continuous reflection-on-action is a necessity for professional expertise and keeping an attentive mind that looking to explores and tries to obtain multiple perspectives to enrich the learner view of the world.\(^1\)

3. Reflective storytelling and writing

Formal reflective writing is an increasingly significant feature in medical training and professional development. Reflection after each project may enhance the deep learning from that project, guided reflection with a supervisor or mentor is essential so that underlying beliefs and assumptions can be challenged within a supportive relationship.\(^1\)

---

**Mentorship**

**Definition**

Mentoring is a continuous provision of counseling to the residents in a training program, which is provided by expert trainers. The counseling includes guidance, support, and advice for improving the residents’ professional and personal aspects, which can be provided formally or informally.

It is a vital component of the training and professional development of resident physicians. In addition, residents can utilize the mentoring session for advice and guidance relating to topics outside of the regular academic program, such as research, career development, networking, time management, self-awareness, and transition into practice.\(^1\)

Mentoring shares similarities with coaching and supervision since the skills required for all three are generic and share much overlap. Any difference between coaching, supervision and mentoring involves a relationship dynamic between two individuals. The difference between developmental mentoring and supervision or coaching is that the mentor-mentee relationship is always equal.

**Five basic steps for a successful mentorship program**

1. Structured organizational and program support, including opportunities for multiple mentors
2. Clarification of roles, responsibilities, and goals for both mentors and mentees
3. Matching of mentors and mentees
4. Training for both mentors and mentees
5. Monitoring and ongoing evaluation of mentoring program/relationship

---

Mentor and mentee roles and responsibilities

Each resident will have a mentor throughout the program. All residents are expected to have 4-6 formal meetings with their mentors annually, more meetings (formal and informal) can be arranged according to the PTC recommendations.


<table>
<thead>
<tr>
<th>Steps</th>
<th>Mentor roles</th>
<th>Mentee roles</th>
</tr>
</thead>
</table>
| Identifying roles | • Have a clear understanding of why you want to be a mentor  
|                 | • Mentor with a realistic assessment of your skills and experience | • Have a clear understanding of why you want to be mentored  
|                 | • Clearly communicate those expectations  
|                 | • Stay flexible in changing expectations or plans | • Select a mentor-based on criteria relevant to your goals  
|                 | • Create goals with milestones and deliverables | • Clearly communicate those expectations  
|                 | • Adapt your feedback to your mentee’s learning style | • Create goals with milestones and deliverables  
|                 | • Be realistic about setting timelines | • Be realistic about setting timelines  
| Communicating expectations | • Have a clear understanding of your expectations for your mentee     | |
### Working together

<table>
<thead>
<tr>
<th>Steps</th>
<th>Mentor roles</th>
<th>Mentee roles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Advise, do not dictate</td>
<td>Listen and contribute to the conversation</td>
</tr>
<tr>
<td></td>
<td>Advise on what you know and admit the things you do not know</td>
<td>Understand that your mentor will not have all the answers</td>
</tr>
<tr>
<td></td>
<td>Give good examples</td>
<td>Accept constructive feedback</td>
</tr>
<tr>
<td></td>
<td>Recognize your mentee's weaknesses and build on his/her strengths</td>
<td>Set time aside for self-reflection</td>
</tr>
<tr>
<td></td>
<td>Offer constructive feedback</td>
<td>Evaluate progress</td>
</tr>
<tr>
<td></td>
<td>Evaluate progress</td>
<td>Celebrate success</td>
</tr>
<tr>
<td></td>
<td>Be your mentee's supporter when he/she reaches his/her goals</td>
<td>Be consistent and reliable</td>
</tr>
<tr>
<td></td>
<td>Be consistent and reliable</td>
<td></td>
</tr>
</tbody>
</table>

### Meeting All the Goals

<table>
<thead>
<tr>
<th>Steps</th>
<th>Mentor roles</th>
<th>Mentee roles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After mentoring is completed, follow-up on successes</td>
<td>Provide your mentor with updates after the mentoring is completed</td>
</tr>
<tr>
<td></td>
<td>Provide an evaluation of the experience</td>
<td>Provide an evaluation of the experience</td>
</tr>
<tr>
<td></td>
<td>Repeat the mentoring process with others</td>
<td>Say, “thank you”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Give back to the profession and volunteer to become an AMTA mentor</td>
</tr>
</tbody>
</table>

---

**For further reading**

- Developmental student support in undergraduate medical education: AMEE Guide No. 92
Supervision

Definition

Supervision is defined as the process of guidance and providing feedback on personal, professional, and educational development matters within the context of residents’ clinical experience to support providing safe and appropriate patient care 1.

Framework for effective supervision 1

- The supervisors are aware of the local postgraduate training body and institutions/training requirement within the supervised context
- Supervisors provide direct supervision for residents and working together and observing each other actively to improve patient outcome and resident development
- Supervisors frequently conduct constructive feedback on residents’ activity
- Structured supervision meetings with regular timetable should be undertaken to discuss agreed learning objectives that determined at the start of the supervisory relationship
- Using supervision contracts as a tool to document detailed meeting frequency, duration, the content of supervision, learning objectives, any specific requirements, reflection and assessment
- Areas for supervision include discussion of the clinical case management plan, evidence-based and research, management and administration, interpersonal skills, and reflection
- The quality of the supervisory relationship strongly affects the supervision process.
- Supervisors training on conducting active and healthy supervising process needs to include understanding teaching, assessment processes; case discussion skills, conveying constructive feedback, careers advice, and interpersonal skills.
- Supervisors and residents need to understand the following 2:
  1. Importance of displaying helpful supervisory behavior that includes giving direct guidance on clinical work, linking theory to practice, engaging in joint problem-solving and offering feedback, reassurance, and providing role models.
  2. Essential to avoid ineffective supervisory behaviors that include threatening, rigidity, low empathy, unsupportive, failure to address supervisees’ concerns, not teaching or offering hints, being inpatient or indirect, and emphasizing on assessment and negative aspects.
  3. The delivery of supervision should be provided within a safe environment; the supervisors must have high interpersonal skills, good teaching skills and be clinically competent and knowledgeable.

Level of supervision

The supervision level will vary according to the grade and relevant experience of the residents.

- **Direct supervision:** Supervisor present in the same room as the person being supervised, providing direct supervision

- **Immediately available supervision:** Supervisor nearby and immediately available to come to the aid of the person being supervised

- **Local supervision:** Supervisor will be in the hospital or other primary care center and available at short notice; able to offer immediate help by telephone and able to come to the aid of the person within a short time

- **Distant supervision:** Supervisor is on call and available for advice; able to come to the residents’ assistance in an appropriate time

For further reading

- AMEE Guide No. 27. Effective educational and clinical supervision
Chapter Five:
Assessment and Evaluation in FM Program (PASS-FM)
Introduction

The Postgraduate Assessment System for FM (PASS-FM) forms a continuum of competency-based evaluation processes throughout the program years starting from day one to the final assessment at the end of training.

The competency-based assessment is a process where an assessor works with a resident to collect evidence of competence, using the benchmarks provided by the unit standards that comprise the national framework.

Any assessment system for Competency-Based Medical Education should reflect the evidence-based foundation of Competency-Based Medical Education which can be summarized as follows:

๏ All assessments are considered samples of what is there, the more volume and diversity of a sample the better the validity of the results.
๏ The higher the risk of the competency, the more samples are needed.
๏ No single assessment tool can represent all aspects of clinical competence.
๏ All assessment involves judgment in every component.
๏ Quantitative and qualitative methods of assessment complement one another.
๏ Feedback is an essential element of assessment.
๏ Assessment drives learning.
๏ Validity is the most important characteristic of assessment data.

In this section, the CDT proposes an assessment and evaluation framework to be implemented by October 2019. It emphasizes the above mentioned criteria as core principles of its existence. However, the programs abilities to modify the processes of assessments was considered essential and a principle of change.

What is the difference between formative and summative assessment?

Formative assessment

The goal of formative assessment is to monitor resident learning to provide ongoing feedback that can be used by trainers to improve their teaching and by residents to improve their learning. More specifically, formative assessments:

๏ Help students identify their strengths and weaknesses and target areas that need improvement.
๏ Help faculty recognize where students are struggling and address problems immediately.
Summative assessment

The goal of summative assessment is to evaluate residents’ learning at the end of an instructional unit by comparing it against standards or benchmarks.

Summary differences between formative and Summative assessments

<table>
<thead>
<tr>
<th></th>
<th>Formative</th>
<th>Summative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What</strong></td>
<td>Assessment FOR learning</td>
<td>Assessment OF learning</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>Improve learning and teaching</td>
<td>Measure of competencies</td>
</tr>
<tr>
<td><strong>When</strong></td>
<td>On-going</td>
<td>End of course</td>
</tr>
<tr>
<td><strong>How used by residents</strong></td>
<td>Learn through feedback and practice</td>
<td>Grades</td>
</tr>
</tbody>
</table>

**PASS-FM**

**Formative**

- **Knowledge**
  - WADA
  - EYPT

- **Skills**
  - OSCE
  - Portfolio

- **Attitude**
  - ITER

**Summative**

- **Knowledge**
  - Part 1 exam
  - Part 2 written exam

- **Skills**
  - OSCE

- **Attitude**
  - SOE
General Rules

The PASS-FM framework is an assessment framework that complements the Assessment and Promotion Rules and Regulations adopted by the SCFHS, and the principles of CBT assessment and evaluations of best practices. The following are the general rules:

1. The assessment methods are composed of formative and summative assessment.
2. The assessment methods are addressing the KSA components of every competency
3. The assessment methods are to facilitate learning through processes of feedback, identification of learning gaps, and repeated attempts to correct failures.
4. Residents’ formative assessment includes a portfolio-based assessment. A continuous, progressive, and diverse method that should provide a broad and deep insight of residents’ performance in all training components.
5. The decision of promoting residents to the next level of training should be made by a team of evaluators (supervised by the PD), after a comprehensive review of all the components of PASS-FM of the assigned year, by majority voting on the results of formative assessment, if the residents’ summative assessment is successful.

PASS-FM: Formative Assessment Components

The formative assessment component of PASS-FM is aiming to provide continuous multiple and variable insights of residents’ performance around the year. The formative assessment is composed of different tools that are intended to measure various aspects of competencies. The following tools are agreed upon by CDT to be implemented in the current version:

Knowledge

The formative assessment tools to assess knowledge are as follow:

1. WADA

Description: This component of formative assessment is aiming to evaluates the residents’ capacity to recall, demonstrate understanding, and ability to deliver the learning contents of the “WADA” (previously known as “half day release”)

Score: 100%

Interpretation:
- < 50%: Clear fail
- 50 - 59.9%: Borderline fail
- 60 - 69.9%: Borderline pass
- 70% or more: Clear pass

Methods:
Part one: A minimum of 50 multiple choice questions (MCQs) that covers WADA scientific topics.
- The exam is held once a year or twice or three times upon agreement among the members of the PTC in the program
๏ The first exam must be held after 6 months of the academic year, if the PTC decides to assess WADA once a year.
๏ The passing score is 60%
๏ A unified exam can be used for all training levels
๏ In case of using a unified exam form, the result will be calculated as follows:
  - Use the exam result as it is for R3 level residents
  - Multiply the exam result of R2 level residents with the correction factor 1.1
  - Multiply the exam result of R1 level residents with the correction factor 1.2

Part two: An average score of resident performance during active participation in WADA using the following standards:
๏ Have clear goals
๏ Be adequately prepared
๏ Communicate effectively
๏ Use appropriate methods (see Appendix)
The distribution of marks is 80% on part one and 20% on part two.

Special considerations
๏ The PTC has the right to repeat the assessment for all or selected residents as they see fit
๏ The PTC has the right to add tools or processes to the assessment method if they are compatible with the types of activities, and do not eliminate any of the above minimum requirements and conditions (e.g., pre and posttests, projects, assignments, exercises)

2. EYPT-local
Description: This component of formative assessment evaluates the residents’ capacity to recall, understand, analyze, and generate decisions about the learning contents of the whole academic year.
Score: 100%
Interpretation
๏ < 50%: Clear fail
๏ 50 - 59.9%: Borderline fail
๏ 60 - 69.9%: Borderline pass
๏ 70% or more: Clear pass
Eligibility:
๏ Valid registration with the SCFHS
๏ Completion of at least 9 months of the academic year before setting for the exam
Methods:
๏ A written examination shall consist of not less than 100 MCQs with a single best answer (one correct answer out of four options)
๏ The examination shall contain type K2 questions (interpretation, analysis, reasoning, and decision making) and type K1 questions (recall and comprehension)
๏ The examination shall include basic concepts and clinical topics relevant to the specialty and its relation to different specialties
๏ Clinical presentation questions include:
- History, clinical findings, and patient approach
- Diagnosis and investigation questions, including the possible diagnosis and diagnostic workups
- Management questions, including pharmacological or non-pharmacological treatments indications, contraindications, precautions, and side effects
- Health maintenance questions, including health promotion, disease prevention, risk factors assessment, and prognosis

The exam duration is 2.5 hours, and it will be delivered as a computer-based test when available; otherwise, a paper-based version will be a substitute.

Special considerations:
- The written examination shall be held once a year within 4-6 weeks after completion of nine months of training in that particular year.
- The result of the exam is final and there shall be no re-sit examination.
- R1 and R2 residents are exempted from the EYPT if they pass the first part of the board exam in the same year.
- Promotion written examination and continuous assessment results are valid for the specific year in which they were conducted.
- All written examination score reports shall go through a post-hoc item analysis before being approved by both the Assistant of General Secretary for Postgraduate studies of the SCFHS and Scientific Examination Committee (SEC), and then reported to the SCFM for promotion decisions for all residents, within two weeks of the examination.
- The SEC is encouraged to provide the scientific council for the specialty with results feedback that represent the performance of all residents based on each section of the exam according to the test blueprint and based on their training center if possible.
- Examination details and blueprints are published on the commission website: www.scfhs.org.sa. However, blueprint distributions of the examination may differ up to (± 3%) in each section.

Skills

The formative assessment tools to assess skills are as follow:

1. Portfolio

Description: This component of formative assessment evaluates residents’ performance in a wide array of clinical and non-clinical skills through the academic year. The portfolio can be defined as a collection of evidence of residents’ activities that outlines residents’ own learning experience. The portfolio can be electronic-based or paper-based according to the preferences of the individual program or academic affairs.

The portfolio contains a component of self-reflection on the contents, which is key for professional development. Portfolios are used as a tool to increase residents’ self-awareness and their ability to learn independently and to encourage them to reflect on their own performance.

Score: for the final annual report of portfolio: 100%
- 80% of the score should be on the essential components of the portfolio
- 20% of the score should be on the optional components of the portfolio

Interpretation:
Saudi Board for Family Medicine Curriculum 2020

- < 50%: Clear fail
- 50 - 59.9%: Borderline fail
- 60 - 69.9%: Borderline pass
- 70% or more: Clear pass

Eligibility:
- Complete a minimum of nine months of the targeted academic year
- The essential components of the portfolio are listed below:

Methods:
A- Mini-Clinical Evaluation Exercise (Mini-CEX): a universal tool used to assess the residents’ performance in patients encounter (see Appendix). To ensure successful application of the tool, the following rules must be implemented in the program:
- It is applicable for all clinical rotations (hospital and FM rotations)
- The evaluation session must be arranged in advance
- It should be conducted in a direct observation model
- The trainer must provide instant verbal feedback after the session is completed, and a written feedback in a one-week period
- Program should maintain a minimum of one Mini-CEX evaluation for every resident every two weeks with minimum satisfaction level. However, the PTC can arrange more frequent evaluations for all residents, or an individual resident as required
- To complete the process, the resident should evaluate the assessment session and reflect on its findings

B- Direct Observation of Procedural Skills (DOPS): a universal tool used to assess the residents’ performance in the required essential and advanced clinical skills (see Appendix). The tool can be applied for assessing residents’ skills in real or simulated situations. To ensure successful application of the tool, the following rules must be implemented in the program:
- The PTC should map the required skills and generate opportunities for residents to be trained and evaluated for the required skills
- Use of simulation is encouraged to limit patient’s inconvenience and potential harm, if the simulation techniques are acceptable
- The evaluation session must be arranged in advance if applicable
- It should be conducted in a direct observation model
- The trainer must provide instant verbal feedback after the session is completed, and a written feedback in a one-week period
- Program should maintain a minimum of one DOPS evaluation for every resident every two weeks with minimum satisfaction level. However, the PTC can arrange more frequent evaluations for all residents, or an individual resident as required
- To complete the process, the residents should evaluate the assessment session and reflect on its findings

C- Case-based discussion (CBD): a universal tool that uses a structured oral interview designed to assess professional judgement across a range of competency areas (see Appendix). To ensure successful application of the tool, the following rules must be implemented in the program:
- It is applicable for all rotations, and the PTC can develop processes to arrange meetings with the residents in hospital rotations to conduct CBD
The evaluation session must be arranged in advance with selected cases picked by the resident.

It should be conducted in an interview model.

The trainer must provide instant verbal feedback after the session is completed, and a written feedback in a one-week period.

Program should maintain a minimum of one CBD evaluation for every resident every two weeks with minimum satisfaction level. However, the PTC can arrange more frequent evaluations for all residents, or an individual resident as required.

To complete the process, the resident should evaluate the assessment session and reflect on its findings.

D- Optional portfolio components:
The PTC can select one or more of the following optional components of the portfolio based on training needs for individual resident or for all of them:

1. Personal development plan: A plan that incorporates personal aspirations for each resident to achieve during residency and beyond. The plan should maintain a fair description of essential components of a plan (mission statement, objectives, initiatives, action plan, etc.)

2. Self-assessment reports: A self-directed learning initiative performed by learners to evaluate their performance using acceptable and available resources of different modalities that will help residents understand their attributes and reflect on their plan.

3. Patients log book: Summary reports of patients’ statistics encountered by the residents, which indicate the level of clinical exposure and conclude its appropriateness.

4. Learning contract: A signed agreement between the residents and their supervisor/mentor to achieve certain learning goals in a specific period of time.

5. Patients care quality reports: Quality report of the residents’ clinical performance, including the process of care (e.g., records keeping, average consultation time, appropriateness of investigations and referral requests, etc.), and outcome of care (e.g., diabetes control rate, patient satisfaction, etc.)

6. Evidence review: A report of evidence review ranging from literature search, critical appraisal, summary synthesis to fully pledged journal club presentations.

7. Clinical reports: Comprehensive reporting of clinical situation on multiple encounters or days of admission that highlight the significant clinical information of that situation; it can range from a simple case presentation, case study, family study, to case series.

Special considerations:

The PTC should release the portfolio contents requirements and the process of portfolio evaluation at the beginning of the academic year.

The portfolio evaluation process should include a document review and resident interview with appointed supervisor/mentor every 1-3 months.

The portfolio evaluation outcome report should consist of a detailed description of residents’ strengths and weaknesses, and suggests modifications and recommendations, which will be submitted to the PTC for review and decision making.
The PTC should enforce a process of documents control for the portfolio contents to prevent document loss and falsification of information.

2. OSCE

Description: This component of formative assessment evaluates residents’ clinical and interpersonal skills, and it is held once a year.

Score: 100%

Interpretation:
- Pass in < 50% of stations: Clear fail
- Pass in 50 - 59.9% of stations: Borderline fail
- Pass in 60 - 69.9% of stations: Borderline pass
- Pass in 70% or more of stations: Clear pass

Eligibility:
- Complete a minimum of six months of the academic year

Methods:
- 8 - 12 stations OSCE exam is conducted for all residents, once a year or on two occasions (juniors and seniors) as seen fit by the PTC
- The program will prepare, conduct, and approve the exam locally in accordance with regulations, styles and methodology of the Saudi board exam
- The stations should include both OSCE and structured oral examination (SOE)
- Each station has its minimal performance level (MPL) tailored per the complexity of the case and level of the examinees

Special considerations:
- The PTC has the right to repeat the assessment, for all or selected residents, as they see fit.

Attitude

The formative assessment tools to assess skills are as follows:

1. In-Training Evaluation Report (ITER)

Description: This component of formative assessment evaluates the residents’ attitudes and behaviors toward achieving excellence in patient care, in a specific timeframe.

Score: 100%

Interpretation:
- < 50%: Clear fail
- 50 - 59.9%: Borderline fail
- 60 - 69.9%: Borderline pass
- 70% or more: Clear pass

Eligibility:
- Complete a minimum of one month in any clinical rotation
- Maintain a 90% attendance rate

Methods:
- Supervisor should complete the ITER at the end of 4 weeks in clinical rotations by correlating between residents’ clinical excellence and good professional behaviors
ITERs should be conducted with each clinical rotation (including FM Rotations and Hospital Rotations) on a monthly bases for all residents in the training program.

- ITERs are submitted to the local supervisory committee or Academic Affairs for each resident based on the expected accomplishments during clinical rotation.
- It will utilize the form in ONE45

Special considerations:
- The PTC can use the ITER individually or collectively to formulate judgment regarding passing or failing the specific rotation.
- The annual ITER (performed by the PD or authorized trainer) should reflect the average score of all ITERs during that year.
- The PTC can omit, modify, or repeat any ITER in case of apparent misjudgment.

Passing Score for Promotion
- To promote any resident to the next level, she/he must obtain at least a “borderline pass” on each assessment tool.
- The program director may recommend to the local supervisory committee (or academic affairs) the promotion of any resident who did not meet the previous promotion requirement according to the following:
  - If the resident achieves a “borderline fail” result on one of the assessment tools, the remaining evaluation forms must be passed with a “clear pass” on at least one of them.
  - If the resident achieves a “borderline fail” result on a maximum of two of the assessment tools, provided they do not fall under the same theme (e.g., KSA), the remaining assessment tools must be passed with “clear pass” on at least two of them.
  - The promotion must be approved in this case by the SCFM.

PASS-FM Summative Components

The summative assessment component of the PASS-FM provides a collective assessment of residents’ competencies on two occasions during the training program.

1. FM Part One Exam

The Saudi Board Part I Examination of shall cover applied basic health sciences related to FM.

Requirements to take the examination are as follows:

Completion of at least nine months of training in any of the Saudi board certificate programs.
- Valid registration in any of the Commission postgraduate programs.
- Any other conditions approved by the Council of Education and Training.
Completion of the examination registration process within the specified period.

General provisions

• The resident may not be promoted from junior to senior level (as determined by the relevant Scientific Council) unless he/she passes the Part I Examination of Saudi Board.

• Exemption from the examination owing to the completion of any other previous postgraduate studies/examinations must be approved by the Central Training Committee.

• The Part I board examination will be held once each year on a date published on the Commission website.

• Candidates are allowed a maximum of four attempts to pass the Part I board examination, before being dismissed from the program.

Examination format:

The exam shall consist of one paper with 120-150 MCQs (single best answer out of four options).

Passing score:

• The passing score is 65%.

• If the percentage of candidates passing the exam before final approval is less than 70%, the passing score can be lowered by one mark at a time aiming at achieving 70% passing rate or a score of 60% whichever comes first. Under no circumstances, may the score be reduced below 60%.

Note:

• Examination details and blueprints are published on the commission website: www.scfhs.org.sa

• Blueprint distributions of the examination may differ up to (±3%) in each section.

2. Final FM Board Examination:

After completing all the FM training requirements and receiving the completion of training certificate, residents can complete the final Saudi Board Examination, which comprises two parts: a written examination and a clinical examination.

Written examination:

This MCQ examination assesses residents’ theoretical knowledge base (including recent advances) and problem-solving capabilities about FM. It is held at least once a year. The number of exam items, exam format, eligibility, and passing score will be in accordance with the Commission’s training and examination rules and regulations. Examination details and blueprints are published on the commission website: www.scfhs.org.sa
Clinical examination:

This examination assesses a broad range of high-level clinical skills, including data collection, patient management, communication, and counseling skills. The examination is held at least once a year, preferably in an OSCE format in the form of patient management problems (PMPs). The exam eligibility, format, and passing score will be in accordance with the Commission’s training and examination rules and regulations. Examination details and blueprints are published on the commission website: www.scfhs.org.sa.

Certification:

Certificates of training completion will only be issued upon residents’ successful completion of all program requirements. Candidates passing all components of the final specialty examination are awarded the “Saudi Board in FM” certificate.
References
References


principles of cognitive apprenticeship. Academic Medicine, 88(6), 861-865. doi: 10.1097/acm.0b013e31828ff112


Appendices
Appendices

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Appendix 2: DOPS  4
Appendix 3: CBD  6
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Appendix 5: WADA Speaker Evaluation  10
Appendix 6: Volunteer Assignment Registration  12
Appendix 7: Research Milestones Progression  14
**Appendix 1: Mini-CEX**

**Case Description:**

<table>
<thead>
<tr>
<th>Patient Age</th>
<th>Sex</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
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</table>

**Summary**

<table>
<thead>
<tr>
<th>Complexity</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
</tr>
<tr>
<td>Average</td>
</tr>
<tr>
<td>Low</td>
</tr>
</tbody>
</table>

**Performance Rating:**

<table>
<thead>
<tr>
<th>Items</th>
<th>Novice</th>
<th>Beginner</th>
<th>Competent</th>
<th>Proficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medical interviewing skills</td>
<td></td>
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<tr>
<td>2. Physical examination skills</td>
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<tr>
<td>3. Counselling and Communications Skills</td>
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<tr>
<td>4. Clinical judgment</td>
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<tr>
<td>5. Consideration for Patient/Professionalism</td>
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<tr>
<td>6. Organization/efficiency</td>
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<tr>
<td><strong>Overall</strong></td>
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</tr>
</tbody>
</table>

**Assessor’s Comments:**

**Aspects were done well**

**Areas for improvement**

**Agreed actions**
Resident’s reflections on patient and areas of learning:

…………………………………………………………………………………………………………………………
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Are you in agreement with this assessment? (Resident)  ○ YES  ○ NO

How do you rate the assessor?

Low  1  2  3  4  5  6  7  8  9  10  High

Resident’s comments (if any) on this evaluation:

…………………………………………………………………………………………………………………………
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Assessor’s Name and Signature  Resident’s Name and Signature  Program director (or equivalent) Name and Signature
### Appendix 2: DOPS

**Procedure Description:**

- **Patient Type:**
  - Real Patient
  - Standardized Patient
  - Simulator

- **Complexity:**
  - High
  - Average
  - Low

- **Procedure**

**Performance Rating:**

- Time taken for observation (min.)

<table>
<thead>
<tr>
<th>Items</th>
<th>Not done / Needs full assistance</th>
<th>Partially done / Needs assistance</th>
<th>Done without assistance</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Professional Approach (communication, consent and patient consideration)</td>
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<tr>
<td>2. Knowledge (indication, anatomy, technique)</td>
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<tr>
<td>3. Appropriate pre-procedure preparation</td>
<td></td>
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<tr>
<td>4. Appropriate analgesia or/and sedation</td>
<td></td>
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<tr>
<td>5. Technical Ability</td>
<td></td>
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<tr>
<td>6. Aseptic Technique</td>
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<tr>
<td>7. Post Procedure Management</td>
<td></td>
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</tbody>
</table>

**Overall**

- Needs more practice
- May need supervision if complications arise
- Competent to perform unsupervised

**Assessor's Comments:**

- Time taken for feedback (min.)

<table>
<thead>
<tr>
<th>Aspects were done well</th>
<th>Areas for improvement</th>
<th>Agreed actions</th>
</tr>
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<tbody>
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</table>

-沙特板家庭医学2020课程-萨达塔米德-2020
Appendix 2: DOPS (cont.)

Resident’s reflections on procedures and areas of learning:

Are you in agreement with this assessment? (Resident)  ○ YES  ○ NO

How do you rate the assessor?

Low 1 2 3 4 5 6 7 8 9 10 High

Resident’s comments (if any) on this evaluation:

Assessor’s Name and Signature  Resident’s Name and Signature  Program director (or equivalent) Name and Signature
### Appendix 3: CBD

<table>
<thead>
<tr>
<th>Resident's Name</th>
<th>Date / /</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Training</td>
<td>Location</td>
</tr>
<tr>
<td>Assessor's Name</td>
<td>Position</td>
</tr>
<tr>
<td>Setting</td>
<td>In-patient</td>
</tr>
</tbody>
</table>

**Case Description:**

**Patient Age** | years | **Sex** | Male | Female | **Diagnosis** | **Summary** | **Complexity** | High | Average | Low |
<table>
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**Performance Rating:**

- Time taken for observation ( min.)

<table>
<thead>
<tr>
<th>Items</th>
<th>Novice</th>
<th>Beginner</th>
<th>Competent</th>
<th>Proficient</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medical records keeping.</td>
<td></td>
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<tr>
<td>2. Clinical assessment.</td>
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<tr>
<td>3. Investigations and referral.</td>
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<tr>
<td>5. Follow-up and future planning.</td>
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<tr>
<td>6. Organization/efficiency</td>
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</tbody>
</table>

**Overall** | | | | | |

**Assessor’s Comments:**

- Time taken for feedback ( min.)

<table>
<thead>
<tr>
<th>Aspects were done well</th>
<th>Areas for improvement</th>
<th>Agreed actions</th>
</tr>
</thead>
<tbody>
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SaudiMED-FM 2020
Appendix 3: CBD (cont.)

Resident’s reflections on patient and areas of learning:

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Are you in agreement with this assessment? (Resident)  ○ YES  ○ NO

How do you rate the assessor?

Low  1  2  3  4  5  6  7  8  9  10  High

Resident’s comments (if any) on this evaluation:

…………………………………………………………………………………………………………………………
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# Appendix 4: ITER

<table>
<thead>
<tr>
<th>Items</th>
<th>Medical Knowledge</th>
<th>Patient Care</th>
<th>Communication and Collaboration</th>
<th>Management and Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MK 1: Demonstrates medical knowledge of sufficient breadth and depth to practice family medicine.</td>
<td>PC 1: Provides preventive and promotive care to all individuals and their families in the targeted community.</td>
<td>CC 1: Develops and maintains meaningful relationships and effectively communicates with patients, families, physicians and other healthcare professionals.</td>
<td>ML 1: Provides cost-conscious medical care to optimize resources utilization.</td>
</tr>
<tr>
<td>2</td>
<td>MK 2: Applies critical thinking and decision-making skills in patient care based on the best available information and resources.</td>
<td>PC 2: Provides continuous maternal and child care through well-structured system to support safe pregnancy and delivery, and children wellbeing.</td>
<td>CC 2: Collaborates with healthcare professionals and participates effectively in teamwork and inter-professional activities.</td>
<td>ML 2: Assesses, improves and monitors quality of care delivered to patients and their families.</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>PC 3: Manages acute or urgent problems by providing needed treatment in the right place at the right time.</td>
<td>CC 3: Documents and shares patient information appropriately to facilitate clinical decision making, and preserve confidentiality.</td>
<td>ML 3: Applies patient safety principles and measures to minimize the incidence and impact of, and maximizes recovery from, adverse events.</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>PC 4: Manages patients with chronic illnesses, and terminally ill patients, by providing comprehensive biopsychosocial-spiritual, integrated, and coordinated care, to improve patients and caregivers quality of life.</td>
<td>CC 4: Uses technology to enhance communication with individuals’ community and health professionals.</td>
<td>ML 4: Advocates for individuals, families, and community health according to their health needs and priorities, based on the principles of the community-oriented primary care model.</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>PC 5: Delivers specialty-specific planned care and coordinate other planned care through accessible and efficient pathway.</td>
<td></td>
<td>ML 5: Manages conflicts in the workplace effectively and professionally, whether they are personal conflicts, conflicts with patients and their families, or conflicts within the healthcare team</td>
</tr>
</tbody>
</table>

### Performance Rating:

- Unsatisfactory (1)
- Below Average (2)
- Average (3)
- Above Average (4)
- Outstanding (5)
## Appendix 4: ITER (cont.)

### Items

#### Professionalism

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Score 1</th>
<th>Score 2</th>
<th>Score 3</th>
<th>Score 4</th>
<th>Score 5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO 1</td>
<td>Adheres to ethical principles derived from the profession, Islamic faith and culture, and humanism values.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>PO 2</td>
<td>Recognizes and adheres to rules and regulations organizing the healthcare practices in the kingdom.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>PO 3</td>
<td>Develops and maintains professional conduct and a sense of accountability.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>PO 4</td>
<td>Demonstrates a commitment to physician health and wellbeing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
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</table>

#### Scholarship

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Score 1</th>
<th>Score 2</th>
<th>Score 3</th>
<th>Score 4</th>
<th>Score 5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC 1</td>
<td>Demonstrates capacity for reflective practice, personal growth, and lifelong learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>SC 2</td>
<td>Contributes effectively in educating individuals and community, including patients, students, residents, and other healthcare professionals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>SC 3</td>
<td>Integrates best available evidence into practice considering context, epidemiology of the disease, comorbidity, and the complexity of patients.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>SC 4</td>
<td>Contributes in scientific research and publication of knowledge relevant to family medicine practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>NA</td>
</tr>
</tbody>
</table>

**Overall (total score/no. of evaluated items)**

---

### Assessor’s Comments:


---

### Are you in agreement with this assessment? (Resident)

- YES
- NO

### How do you rate the assessor?

- Low 1 2 3 4 5 6 7 8 9 10 High

### Resident’s comments (if any) on this evaluation:


---

### Signatures

- 1st Assessor’s Name and Signature
- 2nd Assessor’s Name and Signature
- Resident’s Name and Signature
- Program director Name and Signature
## Appendix 5: WADA Speaker Evaluation

<table>
<thead>
<tr>
<th>Resident's Name</th>
<th>Date / /</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Training</td>
<td>Location</td>
</tr>
<tr>
<td>O R 1</td>
<td>O R 2</td>
</tr>
<tr>
<td>Assessor's Name</td>
<td>Position</td>
</tr>
<tr>
<td>Topic Title</td>
<td>Delivery Mode</td>
</tr>
</tbody>
</table>

**Performance Rating:** Unsatisfactory [1], Below Average[2], Average [3], Above Average[4], Outstanding [5]

<table>
<thead>
<tr>
<th>Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Session organization</td>
<td></td>
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<tr>
<td>2 Logical progression of delivery</td>
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<tr>
<td>3 Scientific contents preparation</td>
<td></td>
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<tr>
<td>4 Validity and adequacy of background information</td>
<td></td>
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<tr>
<td>5 Statement of clear objectives</td>
<td></td>
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<tr>
<td>6 Use of valid and updated citations and resources</td>
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<tr>
<td>7 Utilization of appropriate technology</td>
<td></td>
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<tr>
<td>8 Utilization of appropriate and well-designed tables and graphs</td>
<td></td>
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<td></td>
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<tr>
<td>9 Clear voice and effective communication skills</td>
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<tr>
<td>10 Audience engagement and interaction</td>
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</tbody>
</table>

**Overall (Total score/no. of evaluated items)**

**Asessor’s Comments:**

<table>
<thead>
<tr>
<th>Aspects done well</th>
<th>Areas for improvement</th>
<th>Agreed actions</th>
</tr>
</thead>
<tbody>
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</table>
Appendix 5: WADA Speaker Evaluation (cont.)

Resident’s reflections on activity and areas of learning:

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Are you in agreement with this assessment?  (Resident)  ○ YES  ○ NO

How do you rate the assessor?

Low  1  2  3  4  5  6  7  8  9  10  High

Resident’s comments (if any) on this evaluation:

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Assessor’s Name and Signature  Resident’s Name and Signature  Program director (or equivalent) Name and Signature
### Appendix 6: Volunteer Assignment Registration

<table>
<thead>
<tr>
<th>Resident's Name</th>
<th>Date / /</th>
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<tbody>
<tr>
<td>Level of Training</td>
<td>Location</td>
</tr>
<tr>
<td>R 1</td>
<td>R 2</td>
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<tr>
<td>Mentor's Name</td>
<td>Position</td>
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<tr>
<td>Volunteer work title</td>
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#### Assignment Description:

<table>
<thead>
<tr>
<th>Accredited volunteering hours</th>
<th>Host of event</th>
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| Location of event | Duration from: / /
| To: / / |

#### Assignment Details:

| ………………………………………………………………………………………………………………………… |
| ………………………………………………………………………………………………………………………… |
| ………………………………………………………………………………………………………………………… |
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| ………………………………………………………………………………………………………………………… |
| ………………………………………………………………………………………………………………………… |

#### Mentor's Validation:

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<thead>
<tr>
<th>Resident present proof of achievement</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>What type of proof</td>
<td>Certificate</td>
<td>Letter</td>
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<tr>
<td>Assessor’s Name and Signature</td>
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<tr>
<td>Program director (or equivalent) Name and Signature</td>
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PASS-FM / POR 3
Appendix 7: Research Milestones Progression

**Progression Status:**

<table>
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<tr>
<th>Items</th>
<th>1st attempt</th>
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<th>3rd attempt</th>
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<tbody>
<tr>
<td>Proposal Writing</td>
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<tr>
<td>Ethical and administrative approval</td>
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<td>Literature review</td>
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<td>Data collection</td>
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<td>Analysis</td>
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<td>Discussion</td>
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<td>Conclusion and recommendation</td>
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<td>Thesis writing</td>
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**Supervisor’s Comments:**

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**Supervisor’s Name and Signature**

**Resident’s Name and Signature**

**Program director (or equivalent) Name and Signature**