الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties

Saudi Board for Family Medicine Curriculum 2022

Third Edition

2022

الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties

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Saudi Commission for Health Specialties

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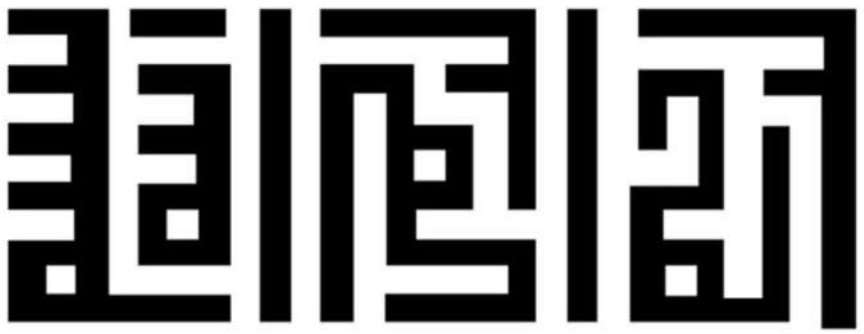

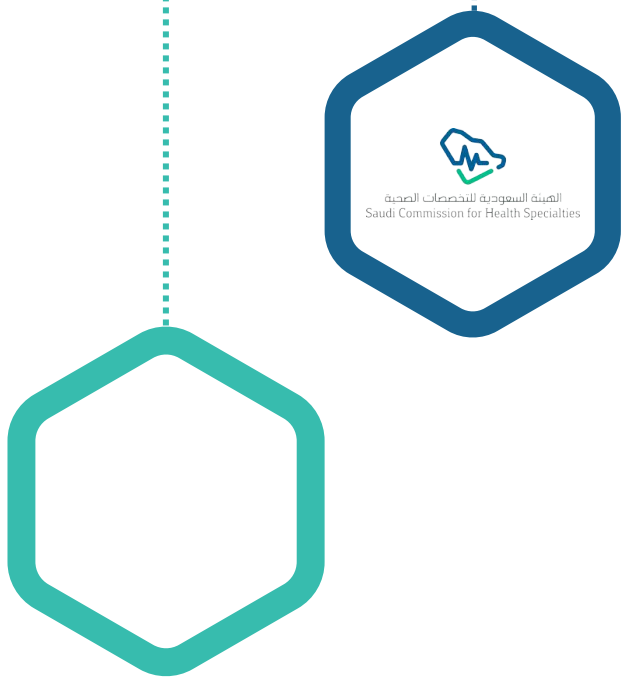
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Acknowledgments

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 2022)** 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.

This (**Second Edition**) involves minimal, but significant changes that render its release; those changes include WADA content and delivery, Volunteering regulations, and formative assessment contents.

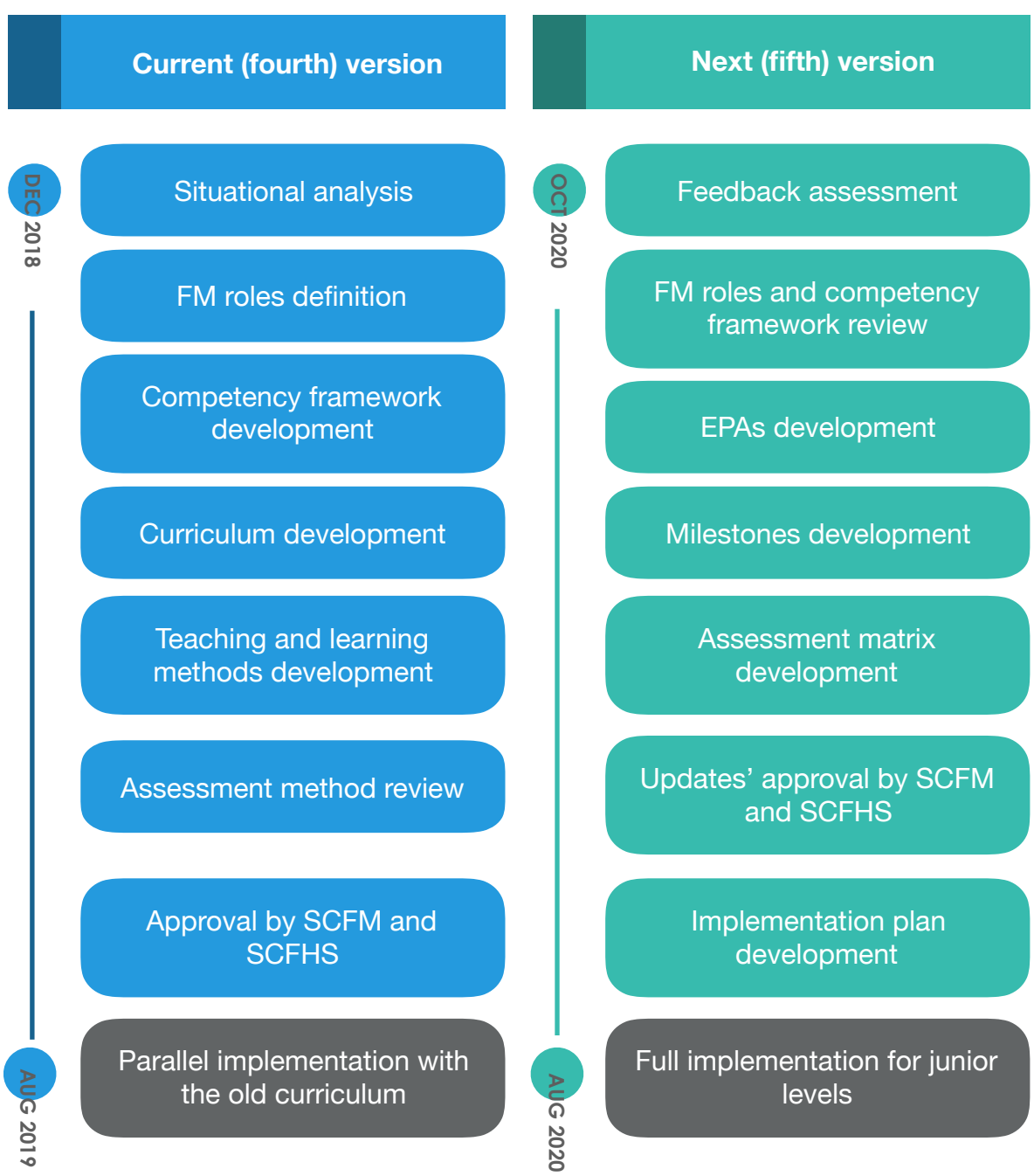
What is new in this edition?

As requested by the SCFHS training executive committee to add a section for women health and family planning in the FM curriculum as it deemed by the new national model of healthcare, the scientific counsel approved the addition of highly recommended 4 weeks rotations in the field of women health and family planning for the senior residents, in addition to a full didactic module in our WADA program.

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

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

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 2022; 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 inter-professional 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 2022 Competency Framework

Introduction

The SaudiMED-FM 2022 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[1]

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 benefits 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 2022 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 2022 framework components.

Medical knowledge

This 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.

CanMEDs	Medical Expert	Medical Expert and Advocator	Communicator and Collaborator	Advocator and Leader	Professional	Scholar
ACGME	Medical Knowledge	Patient Care	Interpersonal and Communication	System Based Practice	Professionalism	Practice Based Learning
SaudiMED-UG	Scientific Approach to Practice	Patient Care	Communication and Collaboration	Community Oriented Practice	Professionalism	Research and Scholarship

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)

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

R1	16 w. FM I				4 w. AEM	4 w. GS	12 w IM			4 w. PEM	8 w PED			**4 w. Annual Leave**	**Total 52 W.**
R2	8 w. OG		4 w. DER	8 w. PSY		12 w. FM II			16 w. Multi-options rotations (ENT/ORT(MSK)/OPT/RAD)						
R3	4 w. ELC	4 w. WHFP	4 w. AEM	36 w. FM III + 4 w. Selective rotations (GER / PAL / DC / WH)											

Module B

FAMILY MEDICINE PROGRAM STRUCTURE

R1	16 w. FM I				4 w. AEM	4 w. PEM	12 w IM			4 w. DER	8 w PSY			**4 w. Annual Leave**	**Total 52 W.**
R2	8 w. OG		4 w. GS	8 w. PED		12 w. FM II			16 w. Multi-options rotations (ENT/ORT(MSK)/OPT/RAD)						
R3	4 w. ELC	4 w. WHFP	4 w. AEM	36 w. FM III + 4 w. Selective rotations (GER / PAL / DC)											

Module C

FAMILY MEDICINE PROGRAM STRUCTURE

R1	16 w. FM I				4 w. AEM	4 w. GS	12 w IM			4 w. PEM	8 w PED			**4 w. Annual Leave**	**Total 52 W.**
R2	8 w. OG		4 w. DER	8 w. PSY		12 w. FM II			4 w. ENT	4 w. OPT	4 w. ORT/ MSK		4 w. RAD		
R3	4 w. ELC	4 w. WHFP	4 w. AEM	36 w. FM III + 4 w. Selective rotations (GER / PAL / DC)											

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	WHFP	Women's Health and Family Planning

Elective and selective rotations

The FM curriculum 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
- 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.

Example 1

ENT	OPT	RAD	ORT/MSK
4 w. rotation	4 w. rotation	4 w. rotation	4 w. rotation

Example 2

ENT	OPT	RAD, ORT/MSK	ELC
4 w. rotation	4 w. rotation	4 w. workshop	4 w. rotation

Example 3

ENT, OPT	ELC	RAD, ORT/MSK	ELC
4 w. workshop	4 w. rotation	4 w. workshop	4 w. rotation

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 specialities' 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 fulfil 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 ED rotation can be merged with FM III, and at least 18 ED 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 two "8 hours" shifts per month at Emergency department (or urgent care clinics) per the program request and decision. The clinical rotations are described in detail below.

Family Medicine Rotation


Full-time


FM I, II, and III


16, 12, and 36 weeks


Juniors and seniors

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 2022. 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.
18. Performs FM-specific elective procedures in a well-controlled and safe environment.
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.

31. Demonstrates capacity for reflective practice, personal growth, and lifelong learning.
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.

Knowledge

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
- Gastritis
- Gastroesophageal Reflux/ Hiatal Hernia
- Gastroenteritis/dehydration
- Gout
- Headache
- Heart failure
- Hypo/hyperglycemia
- Hypothyroidism/ 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

Prevention and promotion

- Child abuse
- Domestic violence
- Routine and catch-up vaccination
- School/Sports/Occupational Physical Assessment
- Screening for common diseases and their complications
- Senior abuse
- Sexual violence
- Adult immunizations
- Smoking cessation
- Weight Management/Exercise
- Well-adult Assessment
- Well-child Assessment
- Women's Health Assessment

Health education and counseling

- Anticipatory Guidance/Family Life Cycle Issues
- Family Planning/Contraception
- Referral and consultation
- Tobacco, Alcohol, Prescription, and Illicit Drugs
- Medication compliance Issues
- Life style and diet counseling

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,
- 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

Full-time **IM** **12 weeks** **Juniors**

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, GIT 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.
6. Manages common acute medical problems through comprehensive "biopsychosocial" care.
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.

Knowledge

Residents **should** master the necessary clinical information for **approaching the following clinical presentations** in adult and adolescent patients

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

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

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

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

- Basic and advanced life support
- Shock
- Anaphylaxis
- GI bleeding
- Myocardial infarction
- Asthma acute exacerbations and status asthmaticus
- Hypertensive urgencies and emergencies
- Diabetes emergencies (DKA, hyperosmolar and hypoglycemia)
- Thyroid emergencies (thyrotoxic storm, and myxedema)
- 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 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
- Neuralgia
- 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
- Glasgow coma scale
- Folly'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

Full-time **PED** **8 weeks** **Juniors**

Activities description:

The pediatric rotation is intended 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.

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

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.

Knowledge

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
- Eczema
- Poison ivy/oak
- Dermatitis (atopic, contact, and seborrheic)
- 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)

Skills

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

 Full-time  OG  8 weeks  Juniors

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:

1. Describes basic aspects of anatomy and pathophysiology of women's reproductive system.
2. Describes the common clinical presentation of pregnancy and gynecological disease .
3. Explains the indications, contraindications, effectiveness and side effects of different methods of contraception and gynecological procedures.
4. Integrates relevant basic, clinical, and evidence-based information in the care of women who are pregnant or have a gynecological disease.

4. Promotes a healthy lifestyle that prevents disease or complication during pregnancy and in women's lives.
5. Applies premarital, pre-conceptional, and antenatal counseling and screening.
6. Manages common clinical presentation for pregnant women and newborns
7. Manages common acute obstetric and gynecological problems in FM setting by providing needed management according to the recent guidelines.
8. Manages safe delivery of newborns by care coordination and provide aid in special situations.
9. Manages common chronic gynecological conditions by providing integrated and coordinated care
10. Coordinates elective obstetric and gynecological procedures and interventions, and provide pre, and post procedural counseling and care.

11. Demonstrates the ability to communicate and collaborate with patients, families, and healthcare team in the OB/GYN 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 OB/GYN patients.
14. Advocates for appropriate monitoring of pregnancy, normal delivery, breastfeeding, and vaccinations.

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

17. Demonstrates commitment to lifelong learning principles by participating in OG department educational activities.
18. Participates in EBM activities including high quality journal clubs focusing on current medical updates.

Knowledge

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
- pelvic inflammatory disease
- fibroid
- 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

Infertility

- Assisted reproductive technology

Other gynecological conditions

- Pelvic organ prolapses
- Endometriosis
- Female sexual dysfunction
- Domestic abuse

Menopause

- Complementary alternatives medicine in the management of postmenopausal symptoms

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

- 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 (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. obstetric US, and Doppler US. fluoroscopy)

Skills

Residents **should** be able to perform the following **clinical assessments** for OG 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
- Head and neck examination
- Chest and breast examination
- Abdomen and pelvis examination including obstetric examination
- Musculoskeletal examination
- Neurological examination

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

Gynecology

- IUD insertion and removal
- Implantable contraceptive insertion and removal
- Diaphragm fitting
- Speculum and bimanual examination
- Perform pap smear and vaginal swab

Obstetric

- Calculation of gestational age and expected date of delivery
- Performance and interpretation of non-stress tests and stress tests
- Management of labor with accurate assessment of cervical progress and fetal presentation and lie
- Spontaneous cephalic delivery
- Calculation of ABGAR score

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

Gynecology

- Assisting with cesarean delivery
- Bartholin duct cyst management
- Colposcopy, cervical biopsy, and endo-cervical curettage
- Endometrial biopsy

Obstetric

- Limited obstetric ultrasound examination (fetal position, amniotic fluid index, placental location, cardiac activity)
- Induction and augmentation of labor, including artificial rupture of membrane
- Active management of the third stage of labor
- Episiotomy and Repair of episiotomies and lacerations
- Neonatal resuscitation
- Vacuum extraction

General Surgery Rotation

Full-time | GS | 4 weeks | Juniors

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.

Knowledge

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 **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

Skills

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

Full clinical history taking including:

- History of present illness
- Systematic review
- Past medical and surgical history
- Family history
- Psychosocial history (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 **surgical procedures**

Minor surgical techniques

- IV Local anesthesia
- Simple excision
- Incision and drainage of abscesses
- Aspiration of cysts
- Foreign body removal
- Cauterization
- Skin biopsy (punch, shave, excisional)
- Wound debridement
- Excision of external thrombotic hemorrhoid
- In grown toe nail
- Nail trephination to drain Hematoma
- Nail removal
- Drain acute paronychia

Wound care

- Technique selection (ligature, staples, adhesives)
- Suture selection and removal
- Drains application and removal
- Dressings application and removal
- Care of diabetic foot
- Burn care (1st and 2nd degrees)

Others

- IV cannula insertion
- IV, IM, and SQ injections
- NGT
- Glasgow coma scale
- Folly's catheter insertion and management
- Central line insertion and management
- Tracheostomy tube management
- Suctions and drains

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

- Endotracheal Intubation
- Central venous access
- Venous cut down
- Nasogastric lavage
- Chest tube
- Bladder aspiration
- Arterial puncture catheterization
- Cricothyroidotomy
- Needle thoracostomy
- Paracentesis
- Pericardiocentesis
- Needle aspiration and biopsy technique

Psychiatry Rotation

Full-time | PSY | 8 weeks | Juniors

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.

Knowledge

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
- Hypersomnolence 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
- Huntington disease

Personality disorders

- Cluster A, B and C.

Substance-related and addictive disorders

- Trichotillomania
- Gambling disorder

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

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)

Full-time | **AEM, PEM** | **8 weeks AEM 4 weeks PEM** | **Juniors and Seniors**

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.
- 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.

12. Demonstrates the ability to communicate and collaborate with patients, families, and the healthcare team in the ED.
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 patients with emergency illnesses.

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 health care proxy)
16. Develops and maintains professional conduct and sense of accountability

17. Demonstrates commitment to lifelong learning principles by participating in ED educational activities.
18. Participates in EBM activities including high-quality journal clubs focusing on current medical updates.

Knowledge

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
- Burns and frostbite

Respiratory:
- 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
- Acid base, fluid and electrolytes regulation and management

Gastrointestinal Disorders:
- Abdominal pain including the acute abdomen
- Ingested foreign body
- Hematemesis, bleeding per rectum
- Constipation/ diarrhea

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
- Folly'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 O^2
- 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

Full-time | DER | 4 weeks | Juniors

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.

Knowledge

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
- Skin Infestations
- Skin allergy, dermatitis
- Inflammatory skin conditions
- Psoriasis
- Keloids/scars
- Nevi
- Skin malignancies
- Dermatologic manifestations of sexually transmitted infections
- Nodular lesion
- Dermatologic manifestations of systemic disease
- Urticaria and cellulitis
- Vascular skin lesions
- Drug eruption
- Telangiectasia, atrophic, scarring, ulcerative diseases Bullous/vesicular diseases
- Pigmentary disorders
- Vasculitic skin lesions

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

- Inflammatory conditions
- Nail infection (fungal, bacterial)
- Nail malignancies
- Psoriasis
- Nails manifestation with systemic disease
- Alopecia and hair loss
- Infestation
- Infection
- Inflammatory conditions

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-microsomial Abs, anti-thyroglobulin Abs)
- Hormones essays (TFT, cortisone, glucocorticoids, FSH, LH, hGH, PTH, progesterone, testosterone, prolactin, dynamic endocrine tests)

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

Skills

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 lesions 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.

Knowledge

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
- Metabolic bone disease (osteoporosis, Paget disease)
- Compartment syndrome
- Overuse syndromes
- Back pain
- Osteomyelitis
- Rheumatologic disorders
- Plantar fasciitis
- Joint replacement

Pediatric problems

- Hip dislocation
- Congenital hip dysplasia
- Avascular necrosis of the femoral head
- Osgood-Schlatter disease
- Slipped capital femoral epiphysis
- Physeal injuries (Salter-Harris classification)
- In-toeing disorders
- Bowleg disorders
- Clubfoot
- Transient synovitis
- Child abuse patterns of injury
- Dislocation of the radial head
- Rickets
- Osteogenesis imperfecta
- Thoracolumbar scoliosis
- Trauma
- Metabolic bone diseases
- Congenital anomalies
- Musculoskeletal birth injuries

Miscellaneous

- Cast problems (including compartment syndrome)
- Targeted pharmacologic treatment
- Supportive/corrective devices, including braces, casts, splints, and orthotics
- Physiotherapy
- Arthroscopy

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 medicolegal 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 (compartment syndrome)
- 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

Multi-options **OPT** **Open** **Juniors**

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 (eg. 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)

16. Demonstrate commitment to lifelong learning principles by participating in ophthalmology department educational activities.
17. Participate in EBM activities including high-quality journal clubs focusing on current medical updates.

Knowledge

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)
- Allergic: perennial, giant papillary conjunctivitis, toxic
- Subconjunctival hemorrhage
- Dry eye disease

Sclera
- Episcleritis, 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
- Hypertensive retinopathy
- Age-related macular degeneration: non-exudative (dry) and exudative (wet)

Lens
- Acquired cataract

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 ocular 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
- Blepharospasm

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 conjunctivitis, 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. atrophia bulbi

Skills

Residents **should** be able to perform the following **clinical assessments** for ophthalmic 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:
- 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 irrigation
- 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


Multi-options


ENT


Open


Juniors

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.

Knowledge

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
- Otorrhea/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 forging 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

Skills

Residents **should** be able to perform the following **clinical assessment** for ENT 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
- Otoscope examination
- Rinne and weber test

- Dix-Hallpike maneuver
- Cranial nerves examination

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

- Audiometry
- Tympanometry
- Nasal packing and cautery
- Intubation

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

- Maxillary antrostomy
- Waterpik sinusense
- Esophageal manometry
- Tympanoplasty
- Endoscopy

Radiology Rotation


Multi-options


RAD


Open


Juniors

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.

4. Applies radiological screening methods for disease prevention and health promotion principles.
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 (eg. 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.

Knowledge

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

Genitourinary

- Renal stone

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

Women's health and Family planning rotation

Full-time | WHFP | 4 weeks | Senior

Activities description:

The women's health and family planning rotation is intended to provide FM residents with exposure to common women's health and family planning cases, and to be involved in decision making processes regarding assessment, counseling, diagnosis, and management of patients with women's health problems.

Activities Types:

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

1. **Outpatient clinics:** at least six clinics of four hours supervised women's health, family planning clinic or gynecology clinic.

Specific rules

In the WHFP rotation, the FM residents must:

- Rotate in women's health clinics under family medicine or gynecology, or major sub-specialties including family planning, contraception, gynecologic oncology, reproductive endocrinology, infertility, STDs clinic , urogynecology based on department structure.
- No on-call
- Participate actively in departmental academic activities including morning meetings, grand rounds and tutorials.
- Attend FM program WADA, which includes a weekly full-day release from outpatient clinics

Competencies

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

1. Explains the indications, contraindications, effectiveness, and side effects of different methods of contraception and gynecological procedures.
2. Integrates relevant basic, clinical, and evidence-based information in the care of women who have gynecological or sexual problems.

3. Promotes a healthy lifestyle that prevents disease or complication during women's life
4. Applies premarital counseling and screening.
5. Manages common chronic gynecological conditions by providing integrated and coordinated care
6. Coordinates elective gynecological procedures and interventions including contraception procedure, and provide pre, and post procedural counseling and care.
7. Applies adolescent counseling and screening.
8. Applies domestic violence counseling and screening.
9. Applies sexual dysfunction counseling and screening for STDs in suspected cases.

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

12. Applies patient safety principles and measures during the assessment and management of women
13. Advocates for appropriate screening for women in different age group based on guideline and recommendation

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.

17. Demonstrates commitment to lifelong learning principles by participating in department educational activities.
18. Participates in EBM activities including high quality journal clubs focusing on current medical updates

Knowledge

Residents **should** master the necessary clinical information for **approaching the following clinical presentations in women**

Women life cycle

- Stages of women life cycle
- Common women's problem in each stage
- Assessment of women's health

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

Counseling

- Premarital investigations and counseling
- Infertility investigation and counseling
- Counseling for domestic violence

Sexual health

- Screening and management of sexually transmitted disease
- Approach to patient with sexual dysfunction
- Counseling for sexual violence

Adolescent health

- Comprehensive adolescent health assessment
- Screening for mental illness
- Screening for sexual problems

Cancer in reproductive system

- Screening for cervical cancer
- Diagnosis and management of uterine , ovarian and cervical cancer

Skills

Residents **should** be able to perform the following **clinical assessments** for **women**

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 and sexual history

Full physical examination including:

- General examination
- Vital signs
- Head and neck examination Chest and breast examination
- Abdomen and pelvis examination including obstetric examination
- Musculoskeletal examination
- Neurological examination

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

- IUD insertion and removal
- Implantable contraceptive insertion and removal
- Diaphragm fitting
- Speculum and bimanual examination
- Perform pap smear and vaginal swab

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 under trainer supervision. The academic activities in the morning should be distributed among the residents and addressed as "modules" (See the topics listed in each specialty with their objectives). 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 program training committee is responsible to arrange in advance for simulation sessions to cover all procedures and skills needed to be mastered by the resident either by ensuring the availability of all instruments and mannikin in their skill lab or by affiliation with other simulation centers to conduct such workshops or by sharing and exchanging with other program the resources . **(See the simulation guide 2020 that can help the trainer to conduct the simulation sessions)**

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	**WADA**		**Afternoon session**
Activity days	**Morning session**	**Afternoon sessions**	
Sunday			
Monday	All senior residents	Group A of seniors	Group B of seniors
Tuesday	All junior residents	Group A of juniors	Group B of juniors
Wednesday			

Week 2	**WADA**		**Afternoon session**
Activity days	**Morning session**	**Afternoon sessions**	
Sunday			
Monday	All senior residents	Group B of seniors	Group A of seniors
Tuesday	All junior residents	Group B of juniors	Group A of juniors
Wednesday			

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, team work, 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
- Simulation session
- Case based learning
- Flipped classroom
- Reflection

Core Specialty Topics for WADA

First: Examples of Core Specialty Topics for the Weekly Academic Day Activities.

1.Family Medicine

Topic	Learning outcomes
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

Topic	Learning outcomes
Immunization	1. Differentiate between passive and active immunization 2. Discuss using immunoglobulin and the indications, contraindications, and complications 3. Recognize the principles and the rationale behind the national immunization policy for children in Saudi Arabia 4. Discuss the indications, contraindications, and complications of routine childhood immunizations 5. Determine how to immunize a child with special conditions or illness or missing vaccine 6. Recognize important recommended adult immunizations
Anemia	1. Differentiate between the different causes of anemia 2. Discuss the investigations that may clarify the diagnosis 3. Recognize the predisposing factors and consequences of iron deficiency anemia and discuss how to manage it 4. Discuss the hereditary basis and clinical features of sickle cell anemia and thalassemia and how to screen for it 5. Recognize and initiate management of sickle cell crisis

2.Surgery

Topic	Learning outcomes
Vascular disease	Approach, management and follow-up of patients with the following conditions: ◉ Acute lower limb ischemia ◉ Chronic lower limb ischemia ◉ Varicose veins ◉ Superficial thrombophlebitis ◉ Deep venous thrombosis (DVT) ◉ Cellulitis and erysipelas of legs ◉ Nocturnal cramps
Head injury and unconsciousness	Approach, management and follow up of patient with following conditions: ◉ Extradural hematoma ◉ Subdural hematoma
Genital disorders	Approach, management and follow up of patient with following conditions: ◉ Hernias ◉ Hydroceles ◉ Hypospadias ◉ Foreskin and circumcision
Breast lumps	Approach to patient with the following conditions: ◉ Carcinoma of the breast ◉ Mammary dysplasia ◉ Breast cyst ◉ Lactation cysts (galactoceles) ◉ Fibroadenoma ◉ Fat necrosis ◉ Mammary duct ectasia ◉ Phyllodes tumor

Topic	Learning outcomes
Anorectal disorders	Approach, management and follow up of patient with following conditions: Anorectal pain ◉ Anal fissure ◉ Proctalgia fugax ◉ Perianal hematoma ◉ Strangulated hemorrhoids ◉ Perianal abscess Anorectal lumps ◉ Skin tags ◉ Perianal warts ◉ Internal hemorrhoids ◉ Anal (fecal) incontinence
Benign prostatic hypertrophy	◉ Assess patients with suspicion of benign prostatic hypertrophy ◉ Perform appropriate workup to diagnose BPH by using appropriate history, physical examination, and investigations ◉ Rule out other causes of lower urinary tract symptoms such as prostatitis and prostate cancer. ◉ Appropriately treat patients with BPH
Abdominal pain	◉ Distinguish between acute and chronic pain ◉ Generate a complete differential diagnosis (DDx) ◉ Investigate in an appropriate and timely fashion ◉ Approach patient with: - Diarrhea or constipation - Appendicitis - Cholecystitis - Irritable bowel syndrome - Inflammatory bowel disease - Abdominal aortic aneurysm (AAA) - Mesenteric artery occlusion - Acute retention of urine - Small bowel obstruction - Large bowel obstruction - Perforated peptic ulcer - Ureteric colic - Biliary pain - Acute pancreatitis - Chronic pancreatitis - Acute diverticulitis
Colorectal disease	Colon cancer screening Approach patient with common colorectal disease: ◉ Hemorrhoid ◉ Anal fissure ◉ Pilonidal sinuses ◉ Diverticulitis

3. Psychiatry

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

4. Medicine

Topic	Learning outcomes
Epilepsy	management and follow-up of patient with following conditions: ◉ Tonic-clonic seizures ◉ Absence seizure ◉ Complex partial seizures ◉ Simple partial seizures ◉ Status epilepticus
Headache	management and follow-up of patient with following conditions: ◉ Tension headache ◉ Migraine ◉ Transformed migraine ◉ Cluster headache ◉ Cervical dysfunction/spondylosis ◉ Combination headache ◉ Temporal arteritis ◉ Frontal sinusitis ◉ Subarachnoid hemorrhage (SAH) ◉ Hypertension headache ◉ Benign intracranial hypertension (pseudo-tumor cerebri)
Dyspnea	management and follow-up of patient with following conditions: ◉ Interstitial lung diseases ◉ Pulmonary function tests ◉ Sarcoidosis ◉ Fibrosing alveolitis ◉ Extrinsic allergic alveolitis ◉ Occupational pulmonary disease ◉ Acute respiratory distress syndrome ◉ Severe acute respiratory syndrome (SARS)

Topic	Learning outcomes
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

Topic	Learning outcomes
Chest pain	◉ Take an adequate history to make a specific diagnosis (acute vs chronic chest pain) ◉ Begin timely treatment ◉ Acute coronary syndrome (Types, diagnostic approach, and management of acute cardiac chest pain in primary healthcare) ◉ ECG in the Evaluation and Management of Acute Coronary Syndrome ◉ Approach patient with cardiovascular emergencies in primary healthcare (pericarditis, myocarditis, endocarditis, etc.)
Heart Failure	◉ Diagnosis and management of patient with heart failure
Arrhythmia	Approach patients with arrhythmias: ◉ Tachyarrhythmia ◉ Supraventricular ◉ Bradyarrhythmia
Thyroid and parathyroid diseases	Approach patient with: ◉ Hypothyroidism and subclinical hypothyroidism ◉ Hyperthyroidism, thyroid nodules and goiter ◉ Management of thyroid storm in primary health care ◉ Thyroid cancer, types and diagnosis ◉ Hyperparathyroidism an hyperparathyroidism
Pituitary and adrenal disease	Approach patient with: ◉ Hyperprolactinemia ◉ Adrenal insufficiency ◉ Hyperkalemia and hyperkalemia in Primary health care
Dysuria	◉ Use history and dipstick urinalysis to determine if the patient has an uncomplicated urinary tract infection ◉ Consider etiologies of dysuria not related to urinary tract infection (e.g., prostatitis, vaginitis, sexually transmitted disease, chemical irritation)
Dyspepsia	◉ To differentiate, by history and physical examination, between conditions presenting with dyspepsia (e.g., gastro-esophageal reflux disease, gastritis, ulcer, cancer) ◉ Ask about and examine the patient for worrisome signs/ symptoms (e.g., gastrointestinal bleeding, weight loss, dysphagia)

Topic	Learning outcomes
Stroke and TIA	◉ Risk factors for stroke and TIA ◉ Assessment and management of patient with stroke or TIA ◉ Post-stroke management
Osteoporosis	◉ Assess osteoporosis risk of all adult patients as part of their periodic health examination ◉ Counsel all patients about primary prevention of osteoporosis (i.e., dietary calcium, physical activity, smoking cessation) ◉ Treat patients with established osteoporosis
Sexual Transmitted Infections (STIs)	Screening, diagnosis and treatment update of common sexual transmitted infections: ◉ HIV ◉ Gonorrhea ◉ Chlamydia ◉ Herpes simplex ◉ Syphilis
Hepatitis	◉ Take a focused history to assist in establishing the etiology (e.g., new drugs, alcohol, blood or body fluid exposure, viral hepatitis) ◉ Interpret the results to distinguish between different causes for hepatitis as the subsequent investigation differs
Endemic diseases	Screening, diagnosis and treatment update of common sexual transmitted infections: ◉ Brucellosis ◉ Dengue fever ◉ Tuberculosis ◉ Traveling medicine
Fever of unknown origin (FUO)	◉ Differentiate between different causes of fever of unknown origin ◉ Recognize features in the presentation that suggest serious of unusual pathology ◉ Determine how to conduct investigations to establish cause

5. Pediatric

Topic	Learning outcomes
Jaundice	Approach, management and follow-up of patient with following conditions: ◉ Infective viral hepatitis ◉ Cholestatic jaundice (bile outflow obstruction) ◉ Jaundice in the infant

Topic	Learning outcomes
Dyspepsia in children	◉ Screen approach, management and follow-up of patient with Gastro-oesophageal reflux
Children's emergencies	RecognizeApproach, management and follow-up of patient with following conditions: 1. Meningitis or encephalitis 2. Acute epiglottitis 3. Poisoning 4. Swallowed foreign objects 5. Inhaled foreign bodies
Neonatal leg and foot abnormalities	Approach, management and follow-up of patient with following conditions: 1. Developmental dysplasia of hip 2. Bow legs (genu varum) 3. Knock knees (genu valgum) 4. In-toeing and out-toeing 5. Club foot (congenital talipes equinovarus) 6. Flat feet (pes plano valgus)
Congenital heart disorders	Approach, management and follow-up of patient with following conditions: 1. Ventricular septal defect 2. Atrial septal defect 3. Patent ductus arteriosus 4. Coarctation of aorta
Childhood common infectious diseases	Approach, management and follow-up of patient with following conditions: 1. Skin eruptions 1. Measles 2. Rubella 3. Scarlet fever 4. Viral exanthema (fourth syndrome) 5. Erythema infectiosum (fifth syndrome) 6. Roseola infantum (exanthema subitum or sixth syndrome) 7. Chickenpox (varicella) 8. Hand, foot, and mouth (HFM) disease 9. Kawasaki disease 10. **Others:** mumps and pertussis

Topic	Learning outcomes
Intellectual disabilities	Approach and follow-up of patient with following conditions: 1. Cerebral palsy 2. Down syndrome 3. Fragile X syndrome 4. Prader–Willi syndrome 5. Williams syndrome 6. Specific learning disabilities 7. Dyslexia 8. Autism spectrum disorders
Growth and puberty problems	Approach, management and follow-up of patient with following conditions: 1. Short stature 2. Tall stature 3. Growing pains (benign nocturnal limb pain) 4. Delayed puberty 5. Precocious puberty 6. Premature thelarche 7. Premature adrenarche 8. Pubertal breast hyperplasia
Cough	Approach, management and follow-up of patient with following conditions: 1. Bronchiolitis 2. Bronchitis 3. Acute bronchitis 4. Chronic bronchitis 5. Breath-holding attacks
Abdominal pain in children	Approach, management and follow-up of patient with following conditions: 1. Intussusception 2. Mesenteric adenitis 3. Recurrent abdominal pain
Diarrhea	◉ Determine hydration status ◉ Treat dehydration appropriately ◉ Pursue investigation in a timely manner
Infantile colic	◉ Approach patient with infantile colic ◉ Appropriate management and advices

Topic	Learning outcomes
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 Developmental delay	◉ 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

6. ENT

Topic	Learning outcomes
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

Topic	Learning outcomes
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, labrynthithis, 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

Topic	Learning outcomes
Visual loss	Approach, management and follow-up of patient with following conditions: 1. Amblyopia 2. Retinoblastoma 3. Cataracts 4. Glaucoma 5. Retinitis pigmentosa 6. Amaurosis fugax 7. Retinal detachment 8. Vitreous hemorrhage 9. Central retinal artery occlusion 10. Central retinal vein thrombosis 11. Macular degeneration 12. Temporal arteritis 13. Posterior vitreous detachment 14. Optic (retrobulbar) neuritis
Red eye in children	Approach, management and follow-up of patient with following conditions: 1. Neonatal conjunctivitis (ophthalmia neonatorum) 2. Trachoma 3. Blocked nasolacrimal duct 4. Orbital cellulitis
Red eye in adults	Approach, management and follow-up of patient with following conditions: 1. Conjunctivitis 2. Episcleritis and scleritis 3. Uveitis (iritis) 4. Acute glaucoma 5. Herpes zoster ophthalmicus 6. Flash burns
Eyelid and lacrimal disorders	Approach, management and follow-up of patient with following conditions: 1. Sty 2. Chalazion (meibomian cyst) 3. Blepharitis 4. Dacryocystitis 5. Dacroadenitis

Topic	Learning outcomes
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)

8. Dermatology

Topic	Learning outcomes
Skin cancer	Approach, management and follow-up of patient with following conditions: 1. Basal cell carcinoma 2. Squamous cell carcinoma 3. Bowen's disorder (intradermal carcinoma) 4. Malignant melanoma

Topic	Learning outcomes
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

Topic	Learning outcomes
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)

Topic	Learning outcomes
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

Topic	Learning outcomes
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

Topic	Learning outcomes
Obstetrics care	Basic antenatal care Management of specific issues: 1. Pregnancy sickness 2. Cramps 3. Varicose veins 4. Mineral supplements in pregnancy 5. Pregnancy-induced hypotension 6. Pregnancy-induced hypertension 7. Physiological breathlessness of pregnancy 8. Acute cystitis Transmissible infections in pregnancy 1. Rubella 2. Varicella (chickenpox) 3. Parvovirus B-19 4. Cytomegalovirus 5. Hepatitis B 6. Hepatitis C 7. HIV 8. Genital herpes 9. Genital warts 10. Syphilis 11. Chlamydia/gonorrhea Postnatal care 1. After pains 2. Oral contraception 3. Insufficient milk supply 4. Engorged breasts 5. Lactation suppression 6. Nipples (cracked and sore) 7. Postnatal depressive disorders 8. Postpartum hypothyroidism 9. Hair loss

Topic	Learning outcomes
Breast pain (mastalgia)	Approach, management and follow-up of patient with following conditions: 1. Cyclical mastalgia 2. Non-cyclical mastalgia 3. Costochondritis (Tietze's syndrome) 4. Mastitis 5. Inflammatory breast cancer (mastitis carcinomatosa) 6. Breast abscess
Lower abdominal pain in women	Approach, management and follow-up of patient with following conditions: 1. Ectopic pregnancy 2. Ruptured ovarian (Graafian) follicle (Mittelschmerz) 3. Ruptured ovarian cyst 4. Acute torsion of ovarian cyst 5. Pelvic adhesions
Pregnancy	◉ Recommend appropriate changes before pregnancy (e.g., folic 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)
Common Gynecological conditions	Approach, management and follow up the patient with following conditions: 1. Polycystic ovarian syndrome 2. Uterine fibroid 3. Endometriosis 4. Dysmenorrhea 5. Amenorrhea 6. Menorrhagia 7. Dyspareunia 8. Vaginal discharge

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

11. Geriatric and palliative care

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

12. Family Planning

Topic	Learning outcomes
Family life cycle	• Understand the stages of family life cycle
Women's health assessment	• Comprehensive women's health assessment based on age and risk • Screening for common women's disease based on recommendation and guidelines • Immunization including HPV vaccine
Counseling for infertility	• Approach and counseling for patient with infertility.
Counseling for premarital	• Request and interpret premarital investigations • Premarital counseling
Counseling for contraception and family planning	Counseling for contraception for women in all reproductive age groups • Permanent methods of contraception • Reversible methods of contraception (OCP, IUCD, implant, ring) • Emergency method of contraception
Sexual medicine	• Prevention and control Sexual transmitted disease • Counseling for Sexual dysfunction
Cancer in reproductive system	Approach and management of patient with: • Cervical cancer • Ovarian cancer • Uterine cancer
Simulation based education for gyn skills	• Pelvic examination • pap smear and HVS technique • Implants • IUCD insertion
Gender-based violence prevention, support, and care	• Counseling for domestic violence
Ethics and low in Family planning	• Apply the medical ethical principles in dealing with ethical dilemma in family planning cases
Adolescent health	• Comprehensive assessment for adolescent • Counseling for Adolescent physical and mental health
Sexual medicine	• Prevention and control Sexual transmitted disease • Counseling for Sexual dysfunction

Second: Examples of Core Specialty Skills/Procedures for the Weekly Academic Day Activities.

Topic	Skills and procedures
Family Medicine	1. Communication skills 2. Dealing with a difficult patient 3. Breaking bad news 4. Presentation skills 5. EBM 6. Critical appraisal and how to form a journal club 7. Clinical teaching and learning strategy 8. Medical ethics, malpractice and patient safety 9. Total quality management 10. Management skills 11. Writing scientific papers 12. Medication safety practice 13. Child safety and environmental hazards 14. Child psychiatry and learning disabilities 15. Stress coping and management 16. End of life care 17. Smoking cessation 18. Premarital counseling 19. Management and Leadership 20. Prevention and promotion 21. Blood pressure measuring 22. Occupational medicine 23. School health 24. Environmental health 25. Nutrition 26. How to investigate an outbreak 27. Reflow check for blood glucose measuring 28. X-ray reading and interpretation 29. Passing the MCQs 30. Objective Structured Clinical Examination (OSCE) preparation
Cardiovascular procedures	1. ECG application, reading and analysis 2. Perform defibrillation or cardioversion 3. Perform CPR (BLS and ACLS)
ENT procedures	1. Anterior and posterior nasal packing 2. Cerumen removal 3. Foreign body removal (ear, nose) 4. Audiogram and tympanogram reading and analysis

Topic	Skills and procedures
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 (womaen) 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

Topic	Skills and procedures
Skin and integument procedures	1. Suturing 2. Use of Wood's lamb 3. Foreign body removal 4. Skin lesion excision 5. Skin lesion biopsy 6. Sebaceous cyst excision 7. Ingrown nail excision 8. Perform cauterization and cryotherapy for skin lesion (liquid nitrogen) 9. Abscess incision and drainage 10. Perform immunization 11. Blood extraction 12. Obtaining an arterial blood gases 13. Intravenous and intramuscular, subcutaneous, and intra-dermal injections 14. Placement of intravenous catheter (adult and pediatrics) 15. Perform intraosseous infusion 16. Wound and burn care (debridement, suturing, repair, and dressing) 17. Local anesthetic techniques (Infiltrate, ring block) 18. Perform swabs (throat, eye, ear, wound, vaginal, urethral, etc.)

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 2022, 60 hours of volunteering activities are required from every resident throughout the program to foster community awareness.

Process:

- All residents must undergo an accredited volunteering orientation course before engagement in volunteering activities (the PTC is responsible for providing opportunities and for assessing residents' readiness)
- All residents are required to read and sign the volunteer ethical charter before engagement in volunteering activities (see Appendix)
- 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 / promotion campaigns.
- Mass media awareness campaigns.
- Mobile clinics for remote and rural areas.
- Mobile blood donations campaigns.
- Vaccination campaigns.
- Family or children with special needs associations.
- Pandemic control.
- Disaster relief organization.
- Others healthcare-related volunteering activities.

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:

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

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?

- **I- Interesting**. The question must be interesting to the investigator,; however, it should also be interesting to others.
- **N- Novel.** Has this study been performed before? Does it add to the current body of medical knowledge?
- **E- Ethical**. Can the study be performed in a way that does not participants subjects to excess risks? Will an institutional review board approve the study?
- **R- Relevant**. Will it further medical science? Will the results change clinical practice or health policy or point towards further avenues of research?

Joint research

Joint research (more than one resident) should be encouraged and can be conducted under the following conditions (after approval from the research committee):

- Large national research projects
- Projects spanning multiple sectors and or different regions in the Kingdom of Saudi Arabia
- Meta-analysis or systematic review

Process of writing:

- The research paper should be written and edited properly in English with no grammar or spelling mistakes, with an abstract in both Arabic and English (abstract should not exceed 300 Words)
- The cover page should include the following:
  1. Name of the training program on the right side of the page
  2. Title of the research
  3. Name of the researcher
  4. Date of research submission
  5. The following statement "This research was submitted in Partial Fulfillment of the Saudi Board in FM.
- The second page should contain the name of the supervisor/s.
- The paper should be printed on white A4 paper in black ink and on one side per page
- Style should be as shown in the Style Table below
- The last page should contain a short curriculum vitae of the researcher.

Process of Writing style

Font	Arial
Font size	14
Margins	One inch on all sides
Font color	Black
Line spacing	Double
Indent	Six spaces
Page numbers	Top right corner
Charts/graphs	Titled and numbered in separate pages

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 2022 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
- Medical ethics: https://www.scfhs.org.sa/en/elibrary/DocsLibrary/versions/Documents/Medical%20ethics.pdf
- 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 recourses)

- SCFHS medical database: https://scfhs.ac-knowledge.net/main-page
- AHQR- quality improvement, patient education, and practice change https://www.ahrq.gov/cahps/quality-improvement/improvement-guide/4-approach-qi-process/index.html
- 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 day[1].

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 task[2].

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 involvements[3].

1. Alfahadi, A. M. (2015, December 08). The effectiveness of using smart board technology in teaching English as a foreign language to preparatory year students at Tabuk University. Retrieved from http://www.sciencepublishinggroup.com/journal/paperinfo?journalid=196&doi=10.11648/j.edu.20150406.12
2. Stalmeijer, R., Dolmans, D., Wolfhagen, I., & Scherpbier, A. (2008). Cognitive apprenticeship in clinical practice: Can it stimulate learning in the opinion of students? *Advances in Health Sciences Education, 14*(4), 535-546. doi: 10.1007/s10459-008-9136-0
3. Spencer, J. (2003). Learning and teaching in the clinical environment. British Medical Journal, *326*, 591-594.

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

- **S** 1. Summarize relevant history and physical findings
- **N** 2. Narrow the differential: Likely, Relevant.
- **A** 3. Analyze the differential
- **P** 4. Probe the preceptor
- **P** 5. Plan patient management
- **S** 6. Select a case-related learning issue

Cognitive apprenticeship model in a clinical settings

Apprentices hip skills	Definition	Trainer role	Resident role	Target resident/ timing
Modeling	Centralized around the **expression of experts' thinking process** to clarify the reasoning process that justifies experts' decision making and action	**Showing and justifying** procedures and skills to their learners	Students are observing and building a conceptual model of the observed skills. Students remember this when new skills or subjects are introduced.	Junior (R1) or residents never perform the task During or after consultation
Coaching	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	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	Perform the task	Junior (R1/2) or residents who has to repeat task/ similar task with more complexity During and after consultation
Articulation	The articulation techniques are aimed to **enable learners to articulate** and formulate the learned knowledge toward problem-solving	To ask and motivate the residents to stimulate cognition and express their knowledge, understanding, clinical reasoning and problem-solving skills,	Express while performing the task	Senior (R 3) perform the Complex task Usually after consultation
Exploration	Reflect on the conceptual model in which a continuous skill is improved by observation and feedback which build **learners' autonomy** in problem-solving skills	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	Perform the task	Senior (R 3) residents perform the complex task usually after consultation

For further reading:

- AMEE Guide no. 34: Teaching in the clinical environment. *Medical Teacher;* 2008.
- AMEE Guide no. 26: Clinical teaching in ambulatory care settings: making the most of learning opportunities with outpatients. *Medical Teacher;* 2005.

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[1]."

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[2].

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.

1. Al-Elq, A. H. (2010). Simulation-based medical teaching and learning. *Journal of Family & Community Medicine*, *17*(1), 35-40. doi: 10.4103/1319-1683.68787

2. Yu So H, Ping Chen P, Wong G, Chan T. Simulation in medical education. Retrieved from https://www.rcpe.ac.uk/college/journal/simulation-medical-education; 2019.

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*
- Al-Elq, A. H. (2010). Simulation-based medical teaching and learning. *Journal of Family and Community Medicine, 17*(1), 35-40. doi: 10.4103/1319-1683.68787

Template for simulation patient design

Case Information Demographic	…… …… …… …… ……
Learning objectives	…… …… …… …… ……
Preparation (equipment required)	…… …… …… …… ……
Time Duration Set-up Preparation Simulation Debrief	…… …… …… …… ……
Patient history	…… …… …… …… ……
Laboratory and radiology results	…… …… …… …… ……
Patient baseline state	…… …… …… …… ……

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.

Teaching and learning style	Features
Traditional lectures	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.
Flipped classroom	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 **deeper thinking and higher levels of application**
Small-group teaching	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.
Case-based teaching	With case-based teaching, students develop skills in analytical thinking and reflective judgment by reading and discussing complex, real-life scenarios.

For further reading

- Adult learning theories: implications for learning and teaching in medical education: AMEE Guide No. 83. *Medical Teacher;* 2013
- Effective small group learning: AMEE Guide No. 48. *Medical Teacher*; 2010.

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 situations[1].

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

1. Doghether, M. (2017). Promoting self-directed learning in family medicine residency program in Saudi Arabia. *World Family Medicine Journal/Middle East Journal of Family Medicine, 15*(5), 34-43. doi: 10.5742/mewfm.2017.92965

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**

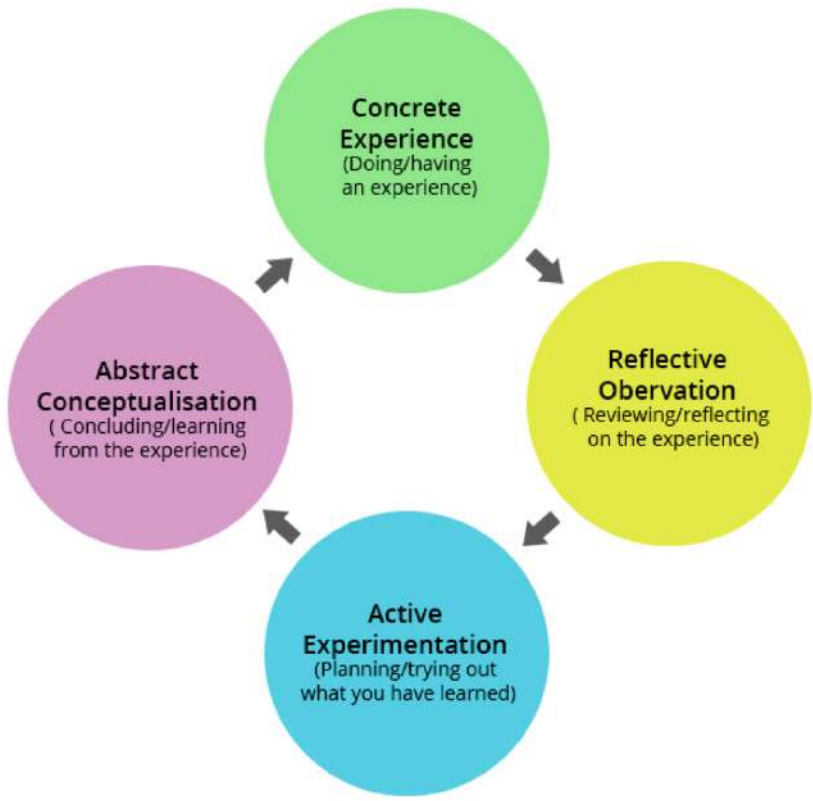
A. **Noticing** by self-monitoring, feedback from others, critical Incidents moreover, and significant event analysis

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].

1. Sandars, J. (2009). The use of reflection in medical education: AMEE Guide No. 44. *Medical Teacher, 31*(8), 685-695. doi: 10.1080/01421590903050374
2. Kolb,A., & Kolb, D. (2005). Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education. *Academy of Management Learning & Education, 4*(2), 193-212. doi: 10.5465/amle.2005.17268566
3. McLeod, S. (2017). Cognitive psychology/learning styles. Retrieved from https://www.simplypsychology.org/learning-kolb.html

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.

1. Resident doctors.ca. (2013). *Position Paper mentorship in residency* [Ebook]. Retrieved from https://residentdoctors.ca/wp-content/uploads/2017/09/POSITION-PAPER-Mentorship-Final_en.pdf

Steps	Mentor roles	Mentee roles
Identifying roles	◉ Have a clear understanding of why you want to be a mentor	◉ Have a clear understanding of why you want to be mentored
	◉ Mentor with a realistic assessment of your skills and experience	◉ Select a mentor-based on criteria relevant to your goals
Communicating expectations	◉ Have a clear understanding of your expectations for your mentee	◉ Have a clear understanding of your expectations for your mentor
	◉ Clearly communicate those expectations	◉ Clearly communicate those expectations
	◉ Stay flexible in changing expectations or plans	◉ Stay flexible in changing expectations or plans
	◉ Create goals with milestones and deliverables	◉ Create goals with milestones and deliverables
	◉ Adapt your feedback to your mentee's learning style	◉ Inform your mentor about your preferred learning style
	◉ Be realistic about setting timelines	◉ Be realistic about setting timelines

Steps	Mentor roles	Mentee roles
Working together	◉ Advise, do not dictate ◉ Advise on what you know and admit the things you do not know ◉ Give good examples ◉ Recognize your mentee's weaknesses and build on his/her strengths ◉ Offer constructive feedback ◉ Evaluate progress ◉ Be your mentee's supporter when he/she reaches his/her goals ◉ Be consistent and reliable	◉ Listen and contribute to the conversation ◉ Understand that your mentor will not have all the answers ◉ Accept constructive feedback ◉ Set time aside for self-reflection ◉ Evaluate progress ◉ Celebrate success ◉ Be consistent and reliable
Meeting All the Goals	◉ After mentoring is completed, follow-up on successes ◉ Provide an evaluation of the experience ◉ Repeat the mentoring process with others	◉ Provide your mentor with updates after the mentoring is completed ◉ Provide an evaluation of the experience ◉ Say, "thank you" ◉ Give back to the profession and volunteer to become a FM mentor

For further reading

◉ (2017). The value of mentorship in medical education. *The Clinical Teacher,* 14, 124–128
◉ 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.

1. Benigno, S. (2016). A viable solution to implementing effective instructional supervision. *Journal of Education and Learning*, *5*(1), 128. doi: 10.5539/jel.v5n1p128
2. Kilminster, S., Cottrell, D., Grant, J., & Jolly, B. (2007). AMEE Guide No. 27: effective educational and clinical supervision. *Medical Teacher*, *29*(1), 2-19. doi: 10.1080/01421590701210907

Importance of supervision activities

- Ensuring patient safety/care
- Educating the residents
- Promoting high standards
- Identifying residents' problems
- Supporting the residents
- Monitoring residents' progress

Useful supervision techniques

- random case note analysis
- analysis of consultation on video
- critical event analysis
- analysis of prescription rates
- analysis of investigation rates
- analysis of hospital referral patterns, referral letters and replies
- analysis of complaints

Types of supervision

The supervision types will vary according to the situation of clinical training.

- **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
- L**ocal 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

Levels of supervision

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

Level of supervision	Definition	Applied to
Level 1	Trainee observes trainer, and trainer is physically present.	First two weeks of the program R1 (Sit in)
Level 2	Trainer observes trainee for every case, and trainer is physically present.	All levels, Each Resident from each level should have at least one Joint Consultation Clinic (JC) per week during FM Modules
Level 3	Trainer is immediately available for consultation or backup as needed for difficult cases that need senior opinion.	All levels; junior Residents should have at least 50% of their clinics in FM modules as Solo clinics. Senior Residents should have 100% Solo Clinics during FM modules II,III

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 theresults
- 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

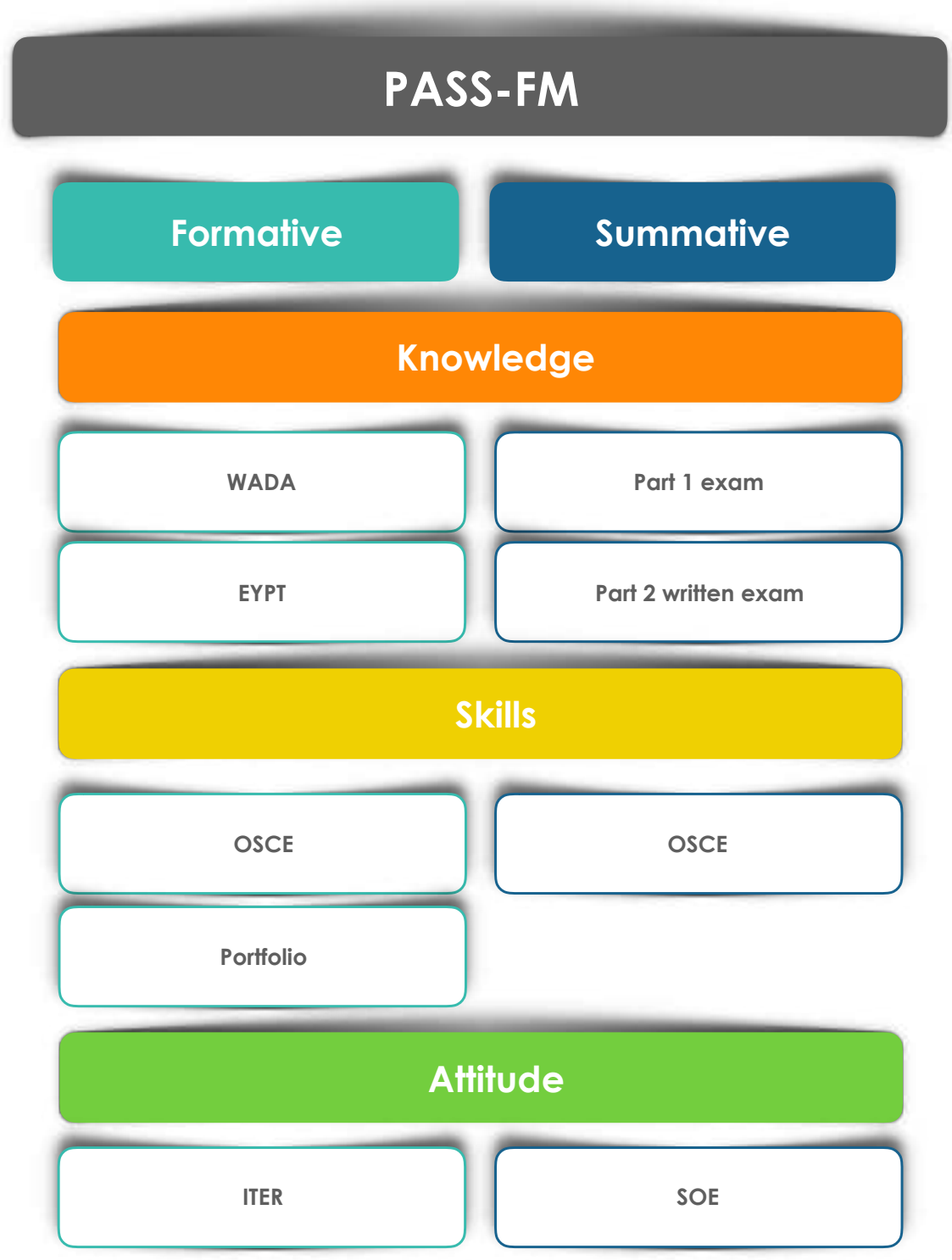
- Help students identify their strengths and weaknesses and target areas that need improvement
- Help faculty recognize where students are struggling and address problems immediately

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

	Formative	Summative
What	Assessment **FOR** learning	Assessment **OF** learning
Purpose	Improve learning and teaching	Measure of competencies
When	On-going	End of course
How used by residents	Learn through feedback and practice	Grades



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, twice or more 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 in the exam is 60% (which represents the score of borderline pass)
- 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 **50%** on part one and **50%** 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, or 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%

- The score should be on the essential components of the portfolio

Interpretation:

- < 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 **four 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 **four 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 **four 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- Additional assignment and tasks:

The PTC can select one or more of the following additional assignments and tasks based on training needs for individual resident or for all of them, the evaluation of these assignments and tasks should be incorporated within the assessor's comment in the ITER of the same month and rotation. The additional assignments and tasks are:

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 academicyear.

- 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:

- 4 - 8 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 tools.
- 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 and the exam format is posted on the SCFHS webpage www.scfhs.org.sa

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.

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Appendices

Appendices

Appendix 1: Mini-CEX

Mini-CEX

Resident's Name ..... **Date** / /

Level of Training ○ R 1 ○ R 2 ○ R 3 **Location** .....

Assessor's Name ..... **Position** .....

Setting ○ In-patient ○ Out-patient ○ Emergency ○ Other .....

Case Description:

Patient Age ..... years **Sex** ○ Male ○ Female **Diagnosis** .....

Summary **Complexity** ○ High ○ Average ○ Low

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Performance Rating:

Time taken for observation (min.)

Items	Novice	Beginner	Competent	Proficient	Not Applicable
1. Medical interviewing skills	○	○	○	○	○
2. Physical examination skills	○	○	○	○	○
3. Counselling and Communications Skills	○	○	○	○	○
4. Clinical judgment	○	○	○	○	○
5. Consideration for Patient/Professionalism	○	○	○	○	○
6. Organization/efficiency	○	○	○	○	○
Overall	○	○	○	○	—

Assessor's Comments:

Time Taken for feedback (min.)

Aspects were done well	Areas for improvement	Agreed actions
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Appendix 1: Mini-CEX (cont.)

Resident's reflections on patient 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 2: DOPS

DOPS

Resident's Name ..... **Date** / /

Level of Training ○ R 1 ○ R 2 ○ R 3 **Location** .....

Assessor's Name ..... **Position** .....

Setting ○ In-patient ○ Out-patient ○ Emergency ○ Other .....

Procedure Description:

Patient Type ○ Real Patient ○ Standardized Patient ○ Simulator

Complexity ○ High ○ Average ○ Low

Procedure .....

Performance Rating:

Time taken for observation (min.)

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

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

Assessor's Comments:

Time taken for feedback (min.)

Aspects were done well	Areas for improvement	Agreed actions
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

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

CBD

Resident's Name ..... **Date** / /

Level of Training ○ R 1 ○ R 2 ○ R 3 **Location** .....

Assessor's Name ..... **Position** .....

Setting ○ In-patient ○ Out-patient ○ Emergency ○ Other .....

Case Description:

Patient Age ..... years **Sex** ○ Male ○ Female **Diagnosis** .....

Summary **Complexity** ○ High ○ Average ○ Low

.....

.....

.....

Performance Rating:

Time taken for observation (min.)

Items	Novice	Beginner	Competent	Proficient	Not Applicable
1. Medical records keeping.	○	○	○	○	○
2. Clinical assessment.	○	○	○	○	○
3. Investigations and referral.	○	○	○	○	○
4. Management plan.	○	○	○	○	○
5. Follow-up and future planning.	○	○	○	○	○
6. Organization/efficiency	○	○	○	○	○
Overall	○	○	○	○	—

Assessor's Comments:

Time taken for feedback (min.)

Aspects were done well	Areas for improvement	Agreed actions
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Appendix 3: CBD (cont.)

Resident's reflections on patient 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 4: ITER

ITER

Resident's Name _____ **Date** / /

Level of Training ○ R 1 ○ R 2 ○ R 3 **Location** _____

Assessor's Name _____ **Position** _____

Program _____ **Rotation** _____

Performance Rating: Unsatisfactory (1), Below Average(2), Average (3), Above Average(4), Outstanding (5)

	Items						
	Medical Knowledge						
1	**MK 1:** Demonstrates medical knowledge of sufficient breadth and depth to practice family medicine.	1	2	3	4	5	NA
2	**MK 2:** Applies critical thinking and decision-making skills in patient care based on the best available information and resources.	1	2	3	4	5	NA
	Patient Care						
3	**PC 1:** Provides preventive and promotive care to all individuals and their families in the targeted community.	1	2	3	4	5	NA
4	**PC 2:** Provides continuous maternal and child care through well-structured system to support safe pregnancy and delivery, and children wellbeing.	1	2	3	4	5	NA
5	**PC 3:** Manages acute or urgent problems by providing needed treatment in the right place at the right time.	1	2	3	4	5	NA
6	**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.	1	2	3	4	5	NA
7	**PC 5:** Delivers specialty-specific planned care and coordinate other planned care through accessible and efficient pathway.	1	2	3	4	5	NA
	Communication and Collaboration						
8	**CC 1:** Develops and maintains meaningful relationships and effectively communicates with patients, families, physicians and other healthcare professionals.	1	2	3	4	5	NA
9	**CC 2:** Collaborates with healthcare professionals and participates effectively in teamwork and inter-professional activities.	1	2	3	4	5	NA
10	**CC 3:** Documents and shares patient information appropriately to facilitate clinical decision making, and preserve confidentiality.	1	2	3	4	5	NA
11	**CC 4:** Uses technology to enhance communication with individuals' community and health professionals.	1	2	3	4	5	NA
	Management and Leadership						
12	**ML 1:** Provides cost-conscious medical care to optimize resources utilization.	1	2	3	4	5	NA
13	**ML 2:** Assesses, improves and monitors quality of care delivered to patients and their families.	1	2	3	4	5	NA
14	**ML 3:** Applies patient safety principles and measures to minimize the incidence and impact of, and maximizes recovery from, adverse events.	1	2	3	4	5	NA
15	**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.	1	2	3	4	5	NA
16	**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	1	2	3	4	5	NA

Appendix 4: ITER (cont.)

	Items						
	Professionalism						
17	**PO 1:** Adheres to ethical principles derived from the profession, Islamic faith and culture, and humanism values.	1	2	3	4	5	NA
18	**PO 2:** Recognizes and adheres to rules and regulations organizing the healthcare practices in the kingdom.	1	2	3	4	5	NA
19	**PO 3:** Develops and maintains professional conduct and a sense of accountability.	1	2	3	4	5	NA
20	**PO 4:** Demonstrates a commitment to physician health and wellbeing.	1	2	3	4	5	NA
	Scholarship						
21	**SC 1:** Demonstrates capacity for reflective practice, personal growth, and lifelong learning.	1	2	3	4	5	NA
22	**SC 2:** Contributes effectively in educating individuals and community, including patients, students, residents, and other healthcare professionals.	1	2	3	4	5	NA
23	**SC 3:** Integrates best available evidence into practice considering context, epidemiology of the disease, comorbidity, and the complexity of patients.	1	2	3	4	5	NA
24	**SC 4:** Contributes in scientific research and publication of knowledge relevant to family medicine practice.	1	2	3	4	5	NA
	Overall (total score/no. of evaluated items)						

Assessor's Comments:

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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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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

WADA

Resident's Name _____ **Date** / /

Level of Training ○ R 1 ○ R 2 ○ R 3 **Location** _____

Assessor's Name _____ **Position** _____

Topic Title _____ **Delivery Mode** _____

Performance Rating: Unsatisfactory (1), Below Average(2), Average (3), Above Average(4), Outstanding (5)

	Items						
1	Session organization	1	2	3	4	5	NA
2	Logical progression of delivery	1	2	3	4	5	NA
3	Scientific contents preparation	1	2	3	4	5	NA
4	Validity and adequacy of background information	1	2	3	4	5	NA
5	Statement of clear objectives	1	2	3	4	5	NA
6	Use of valid and updated citations and resources	1	2	3	4	5	NA
7	Utilization of appropriate technology	1	2	3	4	5	NA
8	Utilization of appropriate and well-designed tables and graphs	1	2	3	4	5	NA
9	Clear voice and effective communication skills	1	2	3	4	5	NA
10	Audience engagement and interaction	1	2	3	4	5	NA
	Overall (Total score/no. of evaluated items)						

Assessor's Comments:

Aspects done well	Areas for improvement	Agreed actions
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Appendix 5: WADA Speaker Evaluation (cont.)

Resident's reflections on activity 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 6: Volunteer Assignment Registration

VAR

Resident's Name _____ **Date** / /

Level of Training ○ R 1 ○ R 2 ○ R 3 **Location** _____

Mentor's Name _____ **Position** _____

Volunteer work title _____

Assignment Description:

Accredited volunteering hours _____ **Host of event** _____

Location of event _____ **Duration from:** / /

To: / /

Assignment Details:

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Mentor's Validation:

Resident present proof of achievement ○ Yes ○ No

What type of proof ○ Certificate ○ Letter ○ Other:.....

Assessor's Name and Signature

Program director (or equivalent) Name and Signature

PASS-FM / POR 3

Appendix 7: The Volunteer Ethical Charter

This charter aims to clarify the controls, obligations, values and principles that contribute to achieving the goals of the Kingdom's 2030 vision to reach one million volunteers, and it defines the requirements and duties of volunteers, and preserves their rights while practicing volunteer work.

Adherence to the ethical charter facilitates and helps all parties participating in volunteer work to perform their duties with high quality and efficiency. Through their commitment to the following elements:

Values and ethics:

Successful actions must be linked to an ethical reference derived from our true religion and the values of our Saudi society, and from the Kingdom's 2030 vision, which will be reflected in the volunteer's behavior and lead him to achieve the goal of voluntary participation. For this, the volunteer must:

1. Commitment to values and ethics based on Islamic principles and responsible citizenship.
2. Be responsible for his volunteer work, which will positively affect the organization and society.
3. Conducting volunteer work with honesty and integrity according to the requirements, principles and ethics of volunteer work.
4. Appreciating and treating everyone with respect and dignity.

Confidentiality:

Work in the volunteer field includes many practices that are not without access to some confidential matters for the segment benefiting from the service and others, in addition to the sensitivity of some issues raised in the volunteer work program. Confidentiality includes all written, read, and electronic matters and what is considered "confidentiality" as well. It is recognized by people, and accordingly the volunteers must adhere to the following:

1. Not to disclose information about the beneficiaries of the volunteer work.
2. Not to divulge information classified as "confidential" about the organization in any medium, whether informative or otherwise, during or after his volunteering.

Reliability and Responsibility:

That the volunteer is reliable, responsible in his actions and words, in addition to being:

1. He is responsible for carrying out the tasks assigned to him.
2. It is referred to the program coordinator or the authorized person in the event of problems or challenges.
3. Realizing that he does not only represent the organization to which he belongs, but rather he is a representative of the nation, its values and principles.

Effective communication :

Effective communication develops good relationships between the volunteer and his friends and colleagues at work, and the beneficiaries with whom he deals, and helps to develop the capabilities of the individual in expressing himself and defining his ideas and opinions clearly to make others able to understand him, and this helps to solve problems and overcome challenges. Therefore, a volunteer should:

1. To benefit from volunteer work in raising practical and professional experience.
2. To be aware and familiar with referencing inquiries about policies and procedures in the organization.
3. To communicate with others quality and effectiveness.

Providing support :

The organization views each volunteer as an important part of the support process in all possible ways to make the volunteering work successful. Therefore, the volunteer is expected to:

1. To be supportive of the beneficiaries and other volunteers around him, especially in the place where he performs his volunteer work.
2. To be supportive of all efforts aimed at enhancing efficiency, effectiveness and achieving excellence in the organization's management in the field of volunteer work.

Positive personality:

A positive personality is a generous, proactive personality that supports and contributes without waiting for anything in return. It is a balanced personality, balanced between rights and duties and possesses seriousness, objectivity and perseverance. Based on this, the following is expected from a positive volunteer:

1. To present what he has with a positive and fruitful effect on those around him.
2. To take the positive, open side in dealing with workers in the organization and to harness the capabilities available to him for the success of the voluntary projects he works on.
3. To ensure the appropriate external appearance at all times and occasions.
4. To seek to know the social and behavioral patterns of the beneficiaries of volunteer work, with the aim of improving his interaction with them and better understanding them.

Professional:

Any work must be linked to a means of measuring its success, and the success of volunteer work can be measured by its positive results that are reflected on the beneficiaries of it, and by the level of the volunteer's professionalism and the level of refinement of his work, and evidence of professionalism in volunteer work:

1. That the volunteer seeks to improve and improve work methods and to benefit from professional developments in the same field.

2. That the volunteer is keen to present and produce the work with the highest possible quality.

3. That the volunteer manages his private and business affairs in a way that does not harm the reputation of the organization he volunteers with.

Reference:

Every organized work has a reference and regulations that must be adhered to in order to ensure the quality of work and outputs, and the reference binds workers in voluntary work:

1. To carry out the tasks according to the structure and references approved in the organization.

2. In full compliance with the controls, regulations and policies approved by the organization.

3. Committed to preserving the property of the organization and the covenant given to him in all its forms, and to return them to the organization.

4. By adhering to the agreements and partnerships concluded by the organization

5. To refrain from giving any commitment or commitment on behalf of the organization without referring to the officials and taking official permission to do so.

Competing interests:

Conflict of interest is the situation or situation in which the objectivity and independence of the volunteers' decision while performing the volunteer work is affected by a personal, material or moral interest that concerns him personally, or that of one of his relatives or close friends, or when his volunteer work is affected by direct or indirect personal considerations, or by his knowledge of information. That relates to the decision. In order to avoid this conflict of interest, the volunteer must:

1. Not to use the organization's resources for personal purposes or benefits, in any way.

2. Refrain from accepting any gift, service or favors except in cases justified by the rules and customs of hospitality and decency.

Equal treatment:

Equality in treatment must be reflected in the volunteer's performance on a clear and neutral basis, free of all kinds of prejudice and racism. Therefore, there should be no discrimination in providing volunteer service to beneficiaries on the basis of race, color, gender, age, nationality, religion, or physical or mental disability.

Training Program : .....

Trainee Name : .....

Trainee Signature : .....

Appendix 8: Research Milestones Progression

RMP

Resident's Name _____ **Date** / /

Level of Training ○ R 1 ○ R 2 ○ R 3 **Location** _____

Assessor's Name _____ **Position** _____

Research Title _____

Progression Status:

	Items	1st attempt	2nd attempt	3rd attempt	Completed	Supervisor signature
1	Proposal Writing	/ /	/ /	/ /	○ YES ○ NO	
2	Ethical and administrative approval	/ /	/ /	/ /	○ YES ○ NO	
3	Literature review	/ /	/ /	/ /	○ YES ○ NO	
4	Research tools generation	/ /	/ /	/ /	○ YES ○ NO	
5	Data collection	/ /	/ /	/ /	○ YES ○ NO	
6	Data entry	/ /	/ /	/ /	○ YES ○ NO	
7	Analysis	/ /	/ /	/ /	○ YES ○ NO	
8	Discussion	/ /	/ /	/ /	○ YES ○ NO	
9	Conclusion and recommendation	/ /	/ /	/ /	○ YES ○ NO	
10	Thesis writing	/ /	/ /	/ /	○ YES ○ NO	

Supervisor's Comments:

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Supervisor's Name and Signature	Resident's Name and Signature	Program director (or equivalent) Name and Signature

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Appendix 9: SaudiMED-FM 2022 Milestones

Introduction

The FM milestones project is aiming to design, develop and map the milestones for the SaudiMED-FM Competency Framework, to be incorporated in the residents evaluation in the context of their participation in Saudi Board for FM curriculum. The milestones framework was not designed to be utilized out of context of SaudiMED-FM 2022, and is not entirely representing the competency framework. However, the milestones provide a great opportunity to assess residents development throughout the training years and among the key competencies.

Working Group

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Currant Draft

This draft of FM milestones are intended for further evaluation and assessment by curriculum review board, and training authority at the SCHS. the presentation method in this draft is designed to allow reviewers to comment on milestone statements and mapping throughout the level of training as follow:

- Level 1 (Foundation): equivalent for promotion requirements from R1
- Level 2 (Core): equivalent for promotion requirements from R2
- Level 3 (Transition): equivalent for promotion requirements from R3 and completing training

Medical Knowledge:

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

Competency	MK 1	Demonstrates medical knowledge of sufficient breadth and depth to practice FM			
Levels	**Level 1**		**Level 2**		**Level 3**
	MK1.1.1	Illustrates sufficient medical knowledge through deep studying	MK1.2.1	Utilizes and performs diagnostic tests and procedures	MK1.3.1 Adapts self directed life-long learning
	MK1.1.2	Identifies and acts on personal learning needs	MK1.2.2	Achieves SBFM part one exam	

Competency	MK 2	Applies critical thinking and decision-making skills in patient care based on the best available information and resources.			
Levels	**Level 1**		**Level 2**		**Level 3**
	MK2.1.1	Expresses basic decision making capabilities	MK2.2.1	Assesses information from multiple resources to make clinical decisions	MK2.3.1 Utilizes knowledge to make decisions in complex clinical situations
	MK2.1.2	Demonstrates correct interpretation of basic clinical tests and images	MK2.2.2	Predicts clinical outcome based on available information	MK2.3.2 Analizes and Integrates medical and personal knowledge of patient, family and community to develop, and implement treatment plans
	MK2.1.3	Adapts the biopsychosocial model in patient care	MK2.2.3	Recognizes the effect of an individual's condition on families and populations	

Patient Care:

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.

Competency	PC1	Provides preventive and promotive care to all individuals and their families in the targeted community.					
Levels	**Level 1**		**Level 2**		**Level 3**		
	PC1.1.1	Gathers family, social, and behavioral history	**PC1.2.1**	Tailors the DPHP recommendations according to patient characteristics	**PC1.3.1**	Describes risks, benefits, costs, and alternatives related to DPHP
	PC1.1.2	Recognizes recommendations for DPHP guidelines developed by various organizations	**PC1.2.2**	Incorporates DPHP recommendations into practice	**PC1.3.2**	Partners with the patient and family to overcome barriers to DPHP
	PC1.1.3	Identifies the roles of behavior, social and genetics determinants of health as factors in DPHP	**PC1.2.3**	Discusses DPHP recommendations with patients for shared decision making	**PC1.3.3**	Mobilizes team members and links patients with community resources to achieve DPHP goals
	PC1.1.4	Appreciates the importance of disease surveillance and notification	**PC1.2.4**	Identifies the role of physicians toward flagged or unidentified infectious diseases to minimize risks of outbreak	**PC1.3.4**	Coordinates care of cases of flagged and unidentified infectious diseases
	PC1.1.5	Discusses the global impact of microbial resistance to antibiotics	**PC1.2.5**	Appropriately select, prescribe, and monitor antimicrobial treatment for indicated patients	**PC1.3.5**	Partners with patient to implement conscious antimicrobial prescription, and identify of resistant strains

Competency	PC2	Provides continuous maternal and child care through a well-structured system to support safe pregnancy and delivery and foster children's wellbeing.					
Levels	**Level 1**		**Level 2**		**Level 3**		
	PC2.1.1	Gathers obstetric and gynecological history	PC2.2.1	Describes risks and complications of pregnancy	PC2.3.1	Partners with the patient and family to appreciate premarital counseling, screening, and family planning.
	PC2.1.2	Assesses Child growth and development	PC2.2.2	Develop appropriate diagnostic and therapeutic management plan for child growth and development conditions	PC2.3.2	Appropriatly identifies and reponds to the signs of demostic violance and child abuse
	PC2.1.3	Recognizes recommendations for healthy conception, delivery and child care	PC2.2.3	Develop appropriate diagnostic and therapeutic management plan for obstetric and gynecology conditions	PC2.3.3	Coordinates care of high risk pregnancies

Competency	PC3	Manages acute or urgent problems by providing needed treatment in the right place at the right time.					
Levels	**Level 1**		**Level 2**		**Level 3**		
Statement	PC3.1.1	Gathers essential information about the patient (history, exam, diagnostic testing, psychosocial context)	PC3.2.1	Consistently recognizes common situations that require urgent or emergent medical care	PC3.3.1	Appropriately prioritizes the response to the acutely ill patient
Statement	PC3.1.2	Generates differential diagnoses	PC3.2.2	Stabilizes the acutely ill patient utilizing appropriate clinical protocols and guidelines	PC3.3.2	Addresses the psychosocial implications of acute illness on patients and families
Statement	PC3.1.3	Recognizes role of clinical protocols and guidelines in acute situations	PC3.2.3	Develops appropriate diagnostic and therapeutic management plans for acute conditions	PC3.3.3	Coordinates care of acutely ill patient with consultants and community services
Statement	PC3.1.4	Demonstrates awareness of internal and external rapid response systems in the community	PC3.2.4	Participates in relevant rapid response systems in the institute	PC3.3.4	Participate in the relevant response systems in the community

Competency	PC4	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.					
Levels	**Level 1**			**Level 2**		**Level 3**	
	PC4.1.1	Establishes relationship with the patient as his or her personal physician		PC4.2.1	Develops a management plan that includes appropriate clinical guidelines	PC4.3.1	Clarifies the goals of care for the patient across the course of the chronic condition and for his or her family and community
	PC4.1.2	Collects, organizes and reviews relevant clinical information		PC4.2.2	Uses quality markers to evaluate the care of patients with chronic conditions	PC4.3.2	Personalizes the care of complex patients with multiple chronic conditions and co- morbidities to help meet the patients' goals of care
	PC4.1.3	Recognizes variability and natural progression of chronic conditions and adapts care accordingly		PC4.2.3	Engages the patient in the self- management of his or her chronic condition	PC4.3.3	Participates in multidisciplinary care of complex patients with multiple chronic conditions and comorbidities
	PC4.1.4	Identifies the role of caregivers in the care outcome		PC4.2.4	Engages in orientation and training of caregivers at home to improve patients outcome	PC4.3.4	Participates in outreach care of patients at home or nurseries

Competency	PC5	Delivers specialty-specific planned care and coordinates other planned care through an accessible and efficient pathway.					
Levels	**Level 1**			**Level 2**		**Level 3**	
	PC5.1.1	Gathers relevant information about patients planned elective intervention		PC5.2.1	Performs procedures under supervision, and presents interpretation of results of the procedures they perform	PC5.3.1	Independently performs all procedures required for graduation
	PC5.1.2	Identifies procedures that family physicians perform with their indications, contraindications, complications, and performance.		PC5.2.2	Uses appropriate resources to counsel the patient on the indications, contraindications, and complications of procedures	PC5.3.2	Counsels the patient regarding indications, contraindications, and complications of procedures commonly performed by other specialties
	PC5.1.3	Demonstrates sterile technique				PC5.3.3	Identifies a plan to acquire additional procedural skills as needed for practice

Communication and Collaboration:

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

Competency	CC1	Develops and maintains meaningful relationships and effectively communicates with patients, families, physicians, and other healthcare professionals.				
Levels	**Level 1**		**Level 2**		**Level 3**	
	CC1.1.1	Identifies the importance of effective communication in patient care	**CC1.2.1**	Creates a non-judgmental, safe environment to actively engage patients and families..	**CC1.3.1**	Uses communication with patients and families to fosters trust, respect, understanding, and the ability to manage conflict
	CC1.1.2	discoveres physical, cultural, psychological and social barriers to communication	**CC1.2.2**	Respects patients' autonomy in their health care decisions and provide care consistent with their values	**CC1.3.2**	Educates and counsels patients and families in disease management and health promotion skills
	CC1.1.3	Utilize different consultation models to establish rapport and facilitate patient-centered care	**CC1.2.3**	Assesses a patient's needs and agenda using active and reflective listening.	**CC1.3.3**	Effectively communicates difficult information, such as end-of-life, bad news, errors, and during crisis
	CC1.1.4	Understands the value of the healthcare team and respects the skills and contributions of others	**CC1.2.4**	Responds to patient's non-verbal cues and utilizes non-verbal communications	**CC1.3.4**	Communicate effectively with the healthcare team by sharing information, and giving and receiving constructive feedback
	CC1.1.5	Selects the information to be shared with patients and families				

Competency	CC2	Collaborates with healthcare professionals and participates effectively in teamwork and interprofessional activities.				
Levels	**Level 1**		**Level 2**		**Level 3**	
	CC2.1.1	Values the effective teamwork in patient care outcome	**CC2.2.1**	Engages the appropriate members in healthcare team to based on individual patient needs	**CC2.3.1**	Accepts responsibility for coordination of care, and directs appropriate teams to ensure quality of care
	CC2.1.2	Recognizes the roles and responsibilities to optimize care, and accepts responsibility for coordination of care	**CC2.2.2**	Assumes responsibility for seamless transitions of care		

Competency	CC3	Documents and shares patient information appropriately to facilitate clinical decision-making, and preserve confidentiality.			
Levels	**Level 1**		**Level 2**		**Level 3**	
	CC3.1.1	Documents and presents patient data in a clear, concise, and organized manner	CC3.2.1	Ensures that clinical and administrative documentation is timely, complete, and accurate	CC3.3.1	Ensures transitions of care are accurately documented, and optimizes communication across systems and continuums of care
	CC3.1.2	Documents and reports clinical and administrative information truthfully	CC3.2.2	Maintains key patient-specific databases, such as problem lists, medications, health maintenance, chronic disease registries		

Competency	CC4	Uses technology to enhance communication with individuals' community and health professionals.			
Levels	**Level 1**		**Level 2**		**Level 3**	
	CC4.1.1	Recognizes effects of technology on information exchange and the physician/ patient relationship	CC4.2.1	Utilizes effectively and ethically all forms of technology to enhance the consultation outcomes	CC4.3.1	Uses technology to optimize continuity care of patients and transitions of care
	CC4.1.2	Recognizes the ethical and legal implications of using technology to communicate in health care			CC4.3.2	Adapts an updated technology to improve communication with patients, health care providers, and systems

Management and Leadership:

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.

Competency	ML1	Provides cost-conscious medical care to optimize resources utilization.			
Levels	**Level 1**		**Level 2**		**Level 3**
	ML1.1.1	Understands that health care resources and costs impact the patients and the health care system	ML1.2.1	Knows and considers costs and risks/benefits of different treatment options in common situations	ML1.3.1 Coordinates individual patient care in a way that is sensitive to resource use, efficiency, and effectiveness

Competency	ML2	Assesses, improves, and monitors the quality of care delivered to patients and their families.			
Levels	**Level 1**		**Level 2**		**Level 3**
	ML2.1.1	Recognizes inefficiencies, inequities, variation, and quality gaps in health care delivery	ML2.2.1	Uses a systematic improvement method (e.g., Plan-Do-Study- Act [PDSA] cycle) to address an identified area of improvement	ML2.3.1 Establishes protocols for continuous review and comparison of practice procedures and outcomes and
	ML2.1.2	Compares care provided by self and practice to external standards and identifies areas for improvement	ML2.2.2	Uses an organized method, such as a registry, to assess and manage population health	ML2.3.2 implement changes to address areas needing improvement

Competency	ML3	Applies patient safety principles and measures to minimize the incidence and impact of, and maximize the recovery from, adverse events.			
Levels	**Level 1**		**Level 2**		**Level 3**
	ML3.1.1	Understands that medical errors affect patient health and safety, and that their occurrence varies across settings and between providers	ML3.2.1	Understands and follows protocols to promote patient safety and prevent medical errors	ML3.3.1 Develops individual improvement plan and participates in system improvement plans that promote patient safety and prevent medical errors
	ML3.1.2	Recognizes medical errors when they occur, including those that do not have adverse outcomes	ML3.2.2	Participates in effective and safe hand-offs and transitions of care	ML3.3.2 Consistently engages in self-directed and practice improvement activities that seek to identify and address medical errors and patient safety in daily practice

	ML3.1.3	Understands the mechanisms that cause medical errors	**ML3.2.3**	Uses current methods of analysis to identify individual and system causes of medical errors common to family medicine	**ML3.3.3**	Fosters adherence to patient care protocols amongst team members that enhance patient safety and prevent medical errors

Competency	**ML4**	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.				
Levels	**Level 1**		**Level 2**		**Level 3**	
	ML4.1.1	Recognizes social context and environment, and how a community's public policy decisions affect individual and community health	**ML4.2.1**	Lists ways in which community characteristics and resources affect the health of patients and communities	**ML4.3.1**	Collaborates with other practices, public health, and community-based organizations to educate the public, guide policies, and implement and evaluate community initiatives
	ML4.1.2	Recognizes the principles of the community-oriented primary care model	**ML4.2.2**	Identifies specific community characteristics that impact specific patients' health	**ML4.3.2**	Seeks to improve the health care systems in which he or she practices
	ML4.1.3	Recognizes that family physicians can impact community health	**ML4.2.3**	Understands the process of conducting a community strengths and needs assessment		

Competency	**ML5**	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.				
Levels	**Level 1**		**Level 2**		**Level 3**	
	ML5.1.1	Recognizes that conflicting personal and professional values exist	**ML5.2.1**	Addresses own conflicting personal and professional values	**ML5.3.1**	Effectively negotiates and manages conflict among members of the health care team in the best interest of the patient

Professionalism:

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

Competency	PO1	Adheres to ethical principles derived from the profession, Islamic faith and culture, and humanist values.				
Levels	**Level 1**		**Level 2**		**Level 3**	
	PO1.1.1	Knows the basic principles of medical ethics	PO1.2.1	Displays a consistent attitude and behavior that conveys acceptance of diverse individuals and groups; (gender, age, culture, race, religion, disabilities.)	PO1.3.1	Demonstrates leadership and mentorship in applying shared standards and ethical principles.
	PO1.1.2	Recognizes the impact of culture on health and health behaviors	PO1.2.2	Identifies own cultural framework that may impact patient interactions and decision-making	PO1.3.2	Incorporates patients' beliefs, values, and cultural practices in patient care plans
	PO1.1.3	Demonstrates honesty, integrity, and respect to patients and team members			PO1.3.3	Identifies health inequities and social determinants of health and their impact on individual and family health

Competency	PO2	Recognizes and adheres to rules and regulations organizing the healthcare practices in the kingdom.				
Levels	**Level 1**		**Level 2**		**Level 3**	
	PO2.1.1	Knows institutional and governmental regulations for the practice of medicine	PO2.2.1	Recognizes that physicians have an obligation to self-discipline and to self-regulate	PO2.3.1	Helps implement organizational policies to sustain medicine as a profession
	PO2.1.2	Embraces the professional responsibilities of being a family physician	PO2.2.2	Engages in self-initiated pursuit of excellence		
	PO2.1.3	Demonstrates honesty, integrity, and respect to patients and team members				

Competency	PO3	Develops and maintains professional conduct and sense of accountability.			
Levels	**Level 1**		**Level 2**		**Level 3**	
	PO3.1.1	Presents him or herself in a respectful and professional manner	PO3.2.1	Consistently recognizes limits of knowledge and asks for assistance	PO3.3.1	Maintains appropriate professional behavior without external guidance
	PO3.1.2	Attends to responsibilities and completes duties as required	PO3.2.2	Has insight into his or her own behavior and likely triggers for professionalism lapses, and is able to use this information to be professional	PO3.3.2	Exhibits self-awareness, self-management, social awareness, and relationship management
	PO3.1.3	Maintains patient confidentiality	PO3.2.3	Reports professionalism lapses using appropriate reporting procedures	PO3.3.3	Negotiates professional lapses of the medical team

Competency	PO4	Demonstrates a commitment to physician health and wellbeing.			
Levels	**Level 1**		**Level 2**		**Level 3**	
	PO4.1.1	Demonstrates awareness of the importance of maintenance of emotional, physical, and mental health	PO4.2.1	Balances physician well- being with patient care needs	PO4.3.1	Appropriately manages situations in which maintaining personal emotional, physical, and mental health are challenged
	PO4.1.2	Recognizes fatigue, sleep deprivation, and impairment	PO4.2.2	Accepts constructive feedback	PO4.3.2	Optimizes professional responsibilities through the application of principles of physician wellness to the practice of medicine
	PO4.1.3	Applies basic principles of physician wellness and balance in life to adequately manage personal emotional, physical, and mental health	PO4.2.3	Recognizes signs of impairment in self and team members, and responds appropriately	PO4.3.3	Maintains competency appropriate to scope of practice

Scholarship:

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.

Competency	SC1	Demonstrates capacity for reflective practice, personal growth, and lifelong learning.			
Levels	**Level 1**		**Level 2**		**Level 3**	
	SC1.1.1	Acknowledges gaps in personal knowledge and expertise and frequently asks for feedback	**SC1.2.1**	Uses point-of-care, evidence-based information and guidelines to answer clinical questions	**SC1.3.1**	Demonstrates use of a system or process for keeping up with relevant changes in medicine
	SC1.1.2	Uses feedback to improve learning and performance	**SC1.2.2**	Has a self-assessment and learning plan that demonstrates a balanced and accurate assessment of competence and areas for continued improvement	**SC1.3.2**	Consistently evaluates self and practice, using appropriate evidence- based standards, to implement changes in practice to improve patient care and its delivery
	SC1.1.3	Incorporates feedback and evaluations to assess performance and develop a learning plan	**SC1.2.3**	Identifies own clinical information needs based, in part, on the values and preferences of each patient	**SC1.3.3**	Regularly seeks to determine and maintain knowledge of best evidence supporting common practices, demonstrating consistent behavior of regularly reviewing evidence in common practice areas

Competency	SC2	Contributes effectively in educating individuals and community, including patients, students, residents, and other healthcare professionals.			
Levels	**Level 1**		**Level 2**		**Level 3**	
	SC2.1.1	Recognizes the impact of curriculum on learners	**SC2.2.1**	Provide feedback to enhance learning and performance	**SC2.3.1**	Assesses learner, teachers, and programs in an educationally appropriate manner
	SC2.1.2	Promotes safe learning environment	**SC2.2.2**	Appreciate the role of assessment as apart of learning	**SC2.3.2**	Integrates coaching, mentorship, and role-modeling into teaching practices
			SC2.2.3	Plans and delivers a learning activity		

Competency	SC3	Integrates best available evidence into practice considering context, epidemiology of the disease, comorbidity, and the complexity of patients.				
Levels	**Level 1**		**Level 2**		**Level 3**	
	SC3.1.1	Recognizes practice uncertainty and knowledge gaps in clinical and other professional encounters	SC3.2.1	Evaluates evidence-based point-of-care resources	SC3.3.1	Critically evaluates information from others, including colleagues, experts, and pharmaceutical representatives, as well as patient-delivered information
	SC3.1.2	Formulates a searchable question from a clinical question	SC3.2.2	Applies a set of critical appraisal criteria to different types of research, including synopses of original research findings, systematic reviews and meta-analyses, and clinical practice guidelines	SC3.3.2	Incorporates principles of evidence-based care and information mastery into clinical practice

Competency	SC4	Contributes to scientific research and publication of knowledge relevant to FM practice.				
Levels	**Level 1**		**Level 2**		**Level 3**	
	SC4.1.1	Demonstrates understanding of scientific and ethical principles of research	SC4.2.1	Describes basic concepts in clinical epidemiology, biostatistics, and clinical reasoning	SC4.3.1	Initiates or collaborates in research to fill knowledge gaps in family medicine
			SC4.2.2	Identifies pros and cons of various study designs, associated types of bias, and patient-centered outcomes		

Appendix 10: Curriculum Infographics

SAUDIMED-FM 2020 COMPETENCY FRAMEWORK

PATIENT CARE

- **PC 1** Provides preventive and promotive care to all individuals and their families in the targeted community.
- **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 3** Manages acute or urgent problems by providing needed treatment in the right place at the right time.
- **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 5** Delivers specialty-specific planned care and coordinate other planned care through an accessible and efficient pathway.

COMMUNICATION AND COLLABORATION

- **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.

MEDICAL KNOWLEDGE

- **MK 1** Demonstrates medical knowledge of sufficient breadth and depth to practice FM.
- **MK 1** Applies critical thinking and decision making skills in patient care based on the best available information and resources.

MANAGEMENT AND LEADERSHIP

- **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.

SCHOLARSHIP

- **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.

PROFESSIONALISM

- **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.

COGNITIVE APPRENTICESHIP MODEL IN A CLINICAL SETTINGS

MODELING

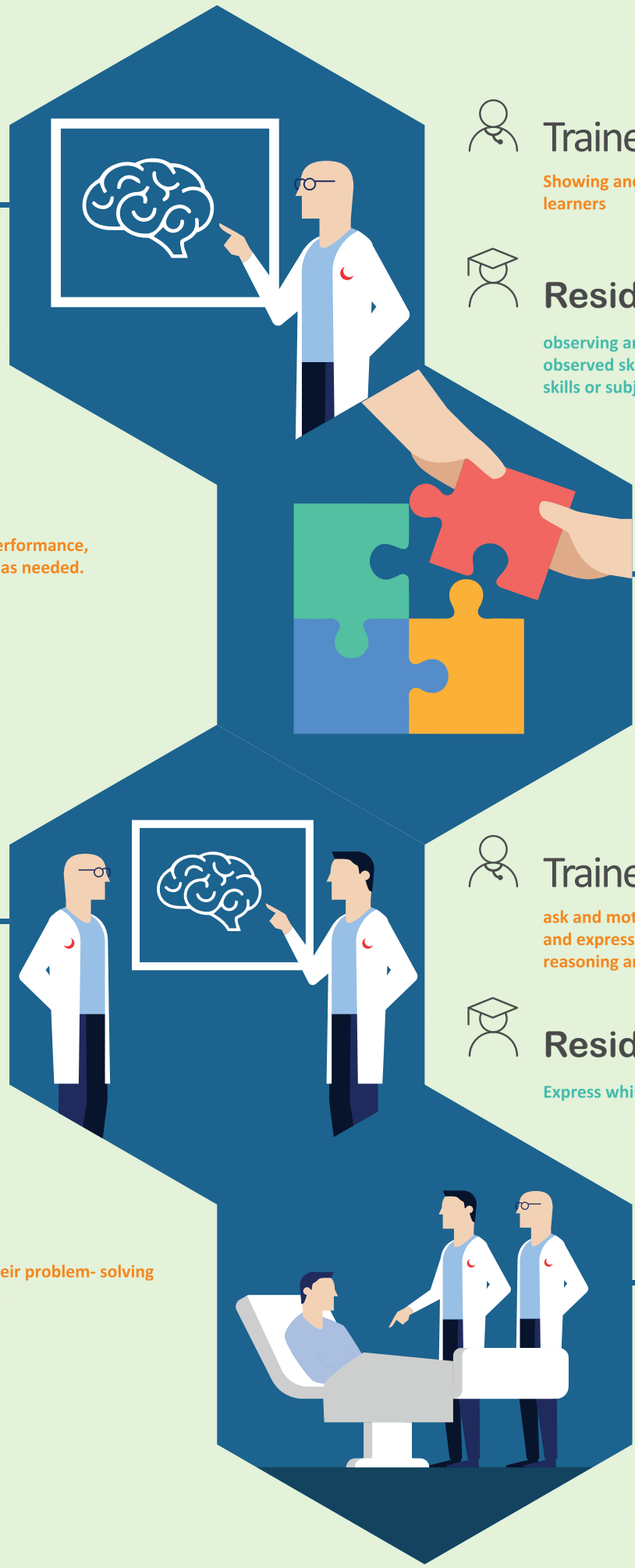
Centralized around the expression of experts' thinking process to clarify the reasoning process that justifies experts' decision making and action

Trainer

Showing and justifying procedures and skills to their learners

Resident

observing and building a conceptual model of the observed skills. Students remember this when new skills or subjects are introduced.



Trainer

Offering hintshelp during task performance, redirecting, and giving feedback as needed.

Resident

Perform the task

COACHING

improve the learners' performance by shifting the learner from observing a task performance to performing a task with support from the expert as needed

ARTICULATION

Enable learners to articulate and formulate the learned knowledge toward problem-solving

Trainer

ask and motivate the residents to stimulate cognition and express their knowledge, understanding, clinical reasoning and problem- solving skills,

Resident

Express while performing the task

Trainer

facilitate learners to compare their problem- solving skills, at macro and micro levels.

Resident

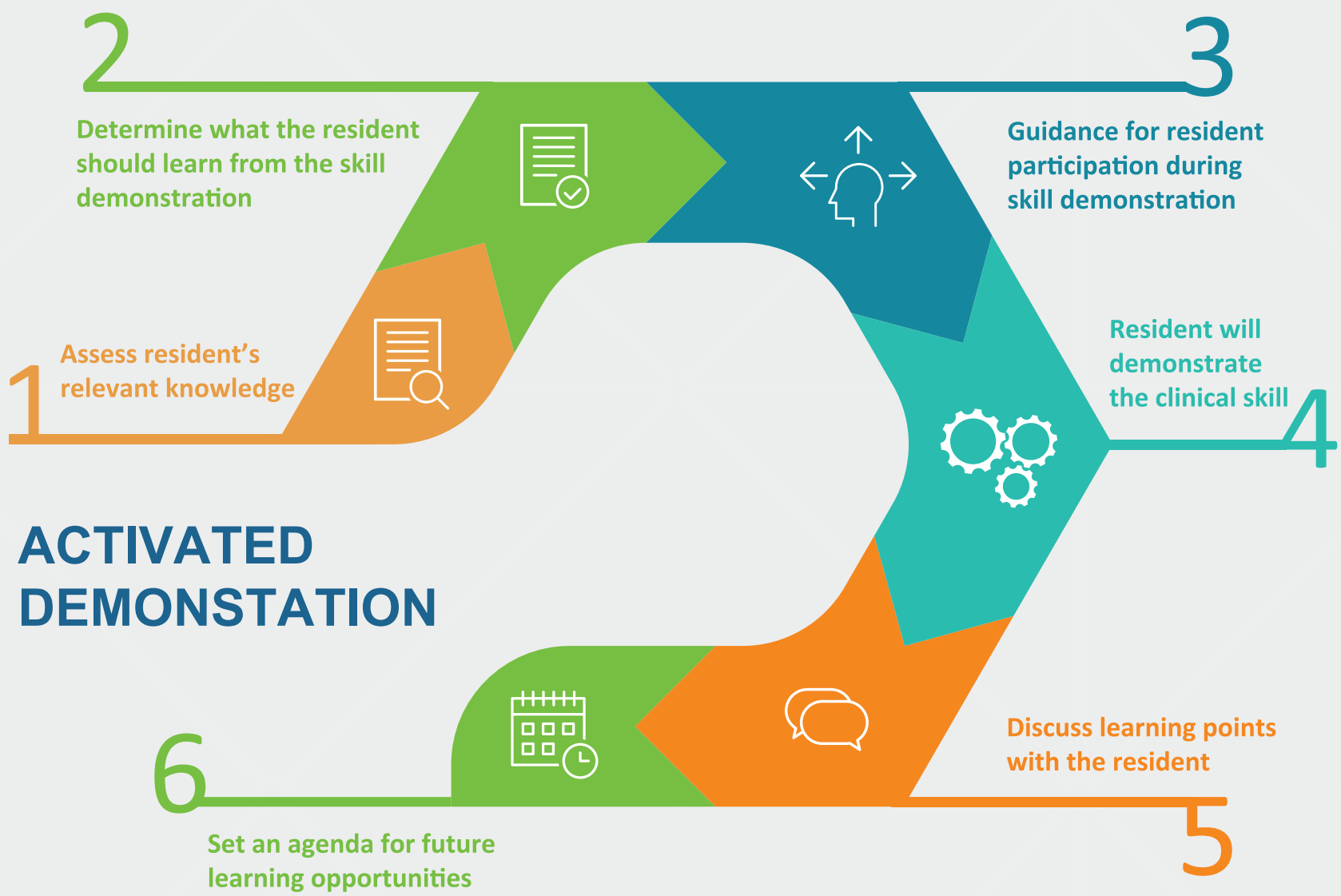
Perform the task

EXPLORATION

Reflect on the conceptual model in which a continuous skill is improved by observation and feedback which build learners' autonomy in problem-solving skills

TEACHING STRATEGIES IN THE CLINICAL SETTINGS

ACTIVATED DEMONSTATION



ONE-MINUTE PRECEPTOR (OMP)

TEACHING AND LEARNING STYLES IN ACADEMIC ACTIVITY

SELF-DIRECTED LEARNING

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.

- **Exploring the learning needs and improving and evaluating their practice considering a changed understanding**
- **Discovering the Knowledge, Skills, and Attitude gaps and correct them**
- **Self-motivating to generate a learning plan that addresses and overcomes the KSA gaps by using the best available evidence**
- **Allocating suitable learning resources and select them wisely and efficiently**
- **Evaluating their learning efforts including utilizing appropriate resources and their practical effects**
- **Repeating the self-directed learning cycle with each patient encounter or in other relevant situations**

TRAINER ROLE

- 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

RESIDENT ROLE

- 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

SCIENTIFIC COUNCIL OF FAMILY MEDICINE

الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties

MENTORSHIP

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.

STEPS FOR A SUCCESSFUL MENTORSHIP PROGRAM

5

4 **Monitoring and ongoing evaluation of mentoring program / relationship**

3 **Training for both mentors and mentees**

2 **Matching of mentors and mentees**

1 **Clarification of roles, responsibilities, and goals for both mentors and mentees**

Structured organizational and program support, including opportunities for multiple mentors

MENTOR AND MENTEE ROLES AND RESPONSIBILITIES

IDENTIFYING ROLES

COMMUNICATING EXPECTATIONS

WORKING TOGETHER

MEETING ALL THE GOALS

SUPERVISION

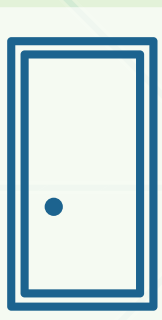
The process of guidance and providing feedback on personal, professional, and educational development matters within the context of residents' clinical experience to support providing safe and appropriate patient care

Direct supervision:

Supervisor present in the same room as the person being supervised, providing direct supervision

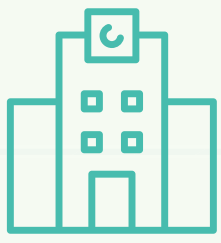
Distant supervision:

Supervisor is on call and available for advice; able to come to the residents' assistance in an appropriate time



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

SUPERVISION TECHNIQUES

- random case note analysis
- analysis of consultation on video
- critical event analysis
- analysis of prescription rates
- analysis of investigation rates
- analysis of hospital referral patterns
- analysis of complaints

RECOMMENDED REFERENCES

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.

Professionalism and Ethics Handbook for Residents

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=%E9%2C93%&affiliate=cdc-main

FAMILY MEDICINE DIDACTIC COURSES

To acquire skills important for family physicians

To alleviate residents' stress and allow them to socialize with their colleagues of various levels

To link FM to hospital medicine

To incorporate the FM approach into clinical problem management

To enable residents to acquire up-to-date knowledge and exchange information and experiences with their colleagues and trainers

32

Academic activities

Clinics

16

16

Skills workshop

WADA

WEEKLY ACADEMIC DAY ACTIVITIES

- 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 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
- complement the clinical experience
- making these sessions interesting and relevant
- The trainer must contribute actively to the session.
- Allow one to two sessions per year for Open activity
- The entire group should participate actively
- Elective sessions per year
- WADA content is one of FM program requirement
- Residents Presentations and the trainers workshops
- Should be involved in line with the problem-solving approach in FM with evidence-based information given

CURRICULUM STRUCTURE
CLINICAL ROTATION

FULL-TIME ROTATIONS

- Dermatology
- Pediatric
- OB/GYN
- Internal medicine
- Psychiatry
- Emergency medicine
- GS

In the **hospital** with the allocated specialty

Full-time resident

MULTI-OPTIONS ROTATIONS

- ENT
- Ophthalmology
- Radiology
- Orthopedic and musculoskeletal

Standard hospital rotations

Workshop

7 **Weekly** educational activities

Simulation

SELECTIVE ROTATION

- Geriatric
- Diabetes care
- Women's health
- Palliative care

OR

1 ER Shifts **2** ER Sessions/Months

FM

In **R3**, **ER** can be merge with **FM3**

FM Clinics includes moorning, evening and weekend

FAMILY MEDICINE PROGRAM

FM
Family Medicine

GS
General Surgery

IM
Internal Medicine

ENT
Otolaryngology

RAD
Radiology

PAL
Palliative

AEM
Adult Emergency Medicine

DER
Dermatology

GER
Geriatrics

PSY
Psychiatry

PEM
Pediatric Emergency Medicine

PED
Pediatric

ORT/MSK
Orthopedic and Musculoskeletal

ELC
Elective

DC
Diabetes Care

OG
Obstetrics and Gynecology

OPT
Ophthalmology

WH
Women's Health

Assessment and Evaluation in FM Program (PASS-FM)

الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties