# Residency Preparation Steps & Curriculum for a New Family Medicine Residency in a Middle Eastern Context

**Masters in International Medicine**

**Scholarly Project**

**for Kanad Hospital in Al Ain, UAE**

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## Step 1 – Identified Problem/Need:

Family Medicine, as a distinct specialty, developed within the Middle Eastern Arab region as early as 1961 in Turkey (Abyad et al., 2007). Culturally, this medical specialty is commonly agreed to be the cornerstone of community-based outpatient primary healthcare (Abyad et al., 2007; Al-Mahrezi & Al Kiyumi, 2019; AlSharief et al., 2018). By 2007, the current residency educational approach included a total of twenty family medicine residencies in the Middle East that were graduating one hundred and fifty family medicine (FM) physicians annually, not including Turkey which annually graduates three hundred FM physicians (Abyad et al., 2007). Currently, Egypt's new primary care focus has succeeded in graduating approximately 1,000 FM physicians yearly in a single-track program (Dr. G. Zubrod, personal communication, n.d.).

This FM focus continues to be an effective strategy for the Middle Eastern countries, including the United Arab Emirates (UAE), as the majority of the Middle Eastern countries that implemented this process witnessed a distinct improvement of their key health indicators almost to levels seen in the United States (Abyad et al., 2007). Examples include the infant mortality rate, which had been 74.7 per 1,000 live births in 1985, decreasing to 43.7/1,000 live births for the Middle East by 2000. This was significantly better than the infant mortality world statistics at 55.6 deaths/1,000 live births at the time. By 2004, the UAE rivaled the US with a similar infant mortality rate of 7/1,000 compared to America's 6/1,000. Currently (2019), the UAE infant mortality rate is 5.6/1,000 (vs. 5.4/1,000 in US) (*Data for United Arab Emirates, United States | Data*, n.d.). The male UAE citizen's life expectancy was 76 while America's was 75. The female life expectancy counterpart was 80 in the US vs. 79 in the UAE (Abyad et al., 2007). All while their healthcare expenditures were 4.2% of their Gross Domestic Product while ours were 16.7% in 2019 (*Current Health Expenditure (% of GDP) - United Arab Emirates, United States | Data*, n.d.).

In 1994, the UAE opened their first family medicine residency in Al Ain, UAE (Abyad et al., 2007). There are three current, very successful UAE family medicine residencies (FMR): the Dubai Residency Training Program, the Sheikh Khalifa Medical City in Ajman, and the Ambulatory Health Services Family Medicine Residency in Al Ain, Abu Dhabi (*Medical Residency Program*, n.d.). The Al Ain FMR graduates 14-15 FM residents each year and is very successful in their Arab FM Board pass rate (Dr. Jeff King, personal communication, February 8, 2022). In total, the UAE graduates 24

FM residents yearly (*Residency and Fellowship Application Process 2022*, n.d.). As of 2017, the Dubai FMR has graduated 230 residents: 87% of whom are women and 92% are UAE citizens, which is unique amongst the healthcare providers in the Middle East wherein only 5-10% of the healthcare staff are citizens. These FM graduates are trained to reach high levels of leadership, administration and academia in the UAE (AlSharief et al., 2018). Nearly 30% of FM graduates enter administrative medicine instead of direct patient care (King, personal communication, February 8, 2022).

Currently, the medical school structure is a 6-year, combined university undergraduate program and medical school curriculum for a Bachelor of Medicine or Surgery degree. United Arab Emirates University (UAEU) is one of the seven medical schools in UAE, along with Khalifa University in Abu Dhabi, Mohammed Bin Rashid University (Dubai), Gulf Medical University, Ajman University, RAK Medical and Health Sciences University, and University of Sharjah (*Medical Universities in the UAE*, n.d.). There are efforts underway for medical school curricula to be reformed towards the ACGME standards of entrustable professional activities (EPAs) (Dr. Jeff King, personal communication, February 8, 2022). Medical students spend most of their clinical time in observation, without any direct patient care or direct medical decision making. These skills will need to be gained during the internship year prior to starting an FMR (Dr. Jeff King, personal communication, February 8, 2022). The USMLE step 1/2/3 exams are available to medical students, though few medical students choose this rigorous path unless their goal is to obtain US residency training where it would be required for admission to US residencies. Hospitals in the UAE tend to specialize around particular foci of care; thus, to obtain a complete patient population for education, it frequently takes relationships with multiple hospitals. This is a challenge for programs starting if they are unable to provide a complete experience for training themselves.

Recently the UAE began a Primary Care Initiative aligning with the World Health Organization's emphasis on primary healthcare being the core base of healthcare. UK-born Executive Director for Healthcare Systems Planning in Abu Dhabi, Neil Clark, is a strategic, patient focused, HC leader in the UAE. In 2015, he was appointed as the advisor to the Undersecretary on Healthcare. The year 2019 saw a shift in his position to the executive director position, and he has been a champion for the Primary Care Initiative for the reform of medical care in the UAE (*Neil Clark - Healthcare Planning Sector - Department of Health Abu Dhabi | LinkedIn*, n.d.).

An acknowledged barrier repeatedly cited to the continuation of this FM national focus is the lack of faculty to teach in FM residencies and the lack of FM physicians as a whole for the UAE's primary care needs. The need for more residents and faculty is an oft–repeated need throughout the Arabian Peninsula (Abyad et al., 2007; Al-Mahrezi & Al Kiyumi, 2019; AlSharief et al., 2018). Thus, the ideal residency educational approach would be the development of another UAE FMR training site at Kanad Hospital in Al Ain, United Arab Emirates. This would help fill the need across the Arabian Peninsula for competent, well-trained, family medicine physicians. Our goal would be to train fluent, culturally-sensitive physicians to practice in the Arabian peninsula serving Arab populations across the region.

Kanad Hospital enjoys a fascinating history. It is the birthplace of His Highness Sheikh Mohammad bin Zayed Al Nahyan, the crown prince of Abu Dhabi, who under other circumstances may not have survived childhood. The founders of Kanad Hospital, Drs. Pat and Marian Kennedy, first arrived in 1960 at the invitation of Sheikh Zayed bin Sultan Al Nahyan – ruler of Abu Dhabi Emirate and president of the UAE from 1971-2004. At that time, only 50 percent of babies survived and one in three mothers died during childbirth. Because of this and other endemic diseases like tuberculosis, malaria, eye diseases, and intestinal parasites, the population of Al Ain was actually declining. From its humble beginnings chiefly as a maternity center, Kanad Hospital has grown to a comprehensive, state-of-the-art facility with 80+ physicians and 130 beds with 149,000 outpatient visits and over 4,000 deliveries each year. Services provided include family medicine, pediatrics, obstetrics/gynecology with maternal-fetal medicine and infertility care, internal medicine, surgical specialties, ENT, ophthalmology, orthopedics, urology, occupational therapy, social services, urgent care, and pharmacy. Kanad Hospital has modern radiology equipment, a full-service laboratory, and utilizes an electronic medical record system. Kanad Hospital is governed by an international Board of Directors from True Sojourners. Kanad Hospital became the first non-government hospital in the emirate of Abu Dhabi to receive Accreditation by the Joint Commission International – an internationally recognized organization focused on improving the safety of patient care (Design, 2013; Dyck, 1995).

## Step 2 – Targeted Needs Assessment:

Targeted learners include graduated medical students from within the UAE, the Arabian Peninsula primarily, and also an occasional applicant from Western countries, if Arabic speaking, on

a case-by-case basis. An initial residency class size is one to two per year, with expansion in the number of residents as the faculty numbers allows.

The goal of four to five FM full time equivalents as faculty includes a residency director (shared title/responsibilities), a residency academic administrator, residency coordinator, behavioral health specialist, resident social health/mentor, and grant writer. This would be the initial need. The targeted learning environment of Kanad Hospital with the associated FM and specialty inpatient patient panels and ambulatory clinics would be our site along with the cooperation of other local Al Ain hospitals required to complete the off-site residency rotations.

Currently there are no residencies at Kanad Hospital but significant interest and support is present with the Family Medicine doctors and within the Kanad Hospital administration (Dr. T. Fincher & Dr. K. Crawford, personal communication, December 8, 2021). Other residencies within Kanad are currently being discussed such as an NICU and Ob/Gyn residencies.

## Step 3 – Goal:

To graduate Consultant Family Physicians able to provide high-quality, value-driven, coordinated, comprehensive medical care appropriate to the needs of the UAE. During their training, residents are expected to gain knowledge, skills and attitudes that guide their future practice. The residents are to have the ability to successful become licensed and board-certified by the ACGME – International and possibly the Arab Board of Family Medicine.

## Step 3 – FM Residency General Objectives:

1. Creation of another Arabian Peninsula, culturally-appropriate FM residency with curriculum that is able to serve as a template for the expansion of FM and FM education within the UAE with the well-accepted 1+4 year internship and FMR pattern of post-medical school graduate medical education. The potential for an additional year of training for increased procedural and/or obstetrical care would be discussed on a case-by-case basis and may include external rotations. Timeline: 5 years

2. Repeating the outdated residency feasibility consultation study done by Dr. Chris Jenkins with Family Medicine-International program in 2013. In His Image International Consultation Al Ain.docx (Dr. Chris jenkins, 2013). Timeline: 3 - 6 months

3. Partnership-building with external FM residency creation experts and other local UAE/Arabian Peninsular residencies and UAE governmental support systems to gain their counsel and assistance for this residency creation effort. Timeline: ongoing
    a. In His Image's (IHI) faculty contacts
        i. Dr. Chris Jenkins, IHI FMR creation consultant for international locations
        ii. Dr. Gordon Zubrod, previous Aswam FMR Director in Egypt
    b. Cleveland Clinic ABU DHABI Residency Training Program
        i. Seeking ACGME-I accreditation also
        ii. https://www.clevelandclinicabudhabi.ae/publishingimages/careers/residency_brochure_en.pdf
    c. Dr. Nader Tadros DO DABFM FAAFP, FM doctor in UAE
    d. Kanad Hospital's connections within the DOH and government that support the creation of another FMR at Kanad Hospital.
    e. Dr. Comninellis' friends/contacts
        i. Dr. Bruce Dahlman MD MSHPE CAAP Executive
        ii. Dr. Cal Wilson
        iii. Dr. Tim Myrick

4. Recruitment and Training of FM physicians as faculty who have been well trained as educators and have a firm grasp on the Arabic language and Middle Eastern culture.
    a. Contextualized faculty training program in a Middle Eastern setting would be ideal and possible using a temporarily available FM faculty expert such as Dr. Heather Harshman, previous Afghani FMR director, as a staff faculty development educator who could be on-site in Kanad Hospital for a short-term position. Timeline: 1 month
    b. Use of Johns Hopkins's ten-week virtual Faculty Development Program as a potential resource for faculty training would be an excellent and online option. https://hopkinsbayviewinternalmedicine.org/programs/faculty-development-johns-

hopkins-bayview-internal-medicine/teaching-skills-program/ ("Teaching Skills Program • Bayview Internal Medicine," n.d.)

c. Onsite/offsite local informal short-term faculty training is also an option.

5. Transition from the current electronic medical record (EMR), Concepts, to a new EMR within one year. Timeline: 3-6 months

6. Begin to accept UAEU 1st year intern/FM residents in a FM rotation at Kanad Hospital to build experience in FM educational training of current FM physicians within one year. This is scheduled to begin 9/2022 with the hospital's first intern. Timeline: September 2022

7. Completion of the expansion of Kanad Hospital's physical space to allow for a FM/IM outpatient clinic, residency, FM offices, and educational/teaching spaces preferably with SIM labs. Timeline: 3 years

8. Creation of resident eligibility criteria. Timeline: 1 year. Examples of such:
    a. Cleveland Clinic Training Program – Abu Dhabi resident eligibility criteria:
        i. Cumulative medical school grade point average of 3.0 or higher on a 4.0 point scale or its equivalent.
        ii. Fulfillment of licensure requirements set forth by the Abu Dhabi DOH.
        iii. TANSEEQ criteria fulfillment WWW.HAAD.AE
    b. Cleveland Clinic Training Program resident application prioritization:
        i. Excellent academic records.
        ii. Excellent USMLE step 1 & 2 scores for clinical knowledge or equivalent medical exams.
        iii. Proof of English language proficiency w/ TOEFL minimum score of 80 on the internet exam or 550 on the paper exam or IELTS with a minimum score of 6.5 on the academic test application.
        iv. Medical school graduation within the previous 5 years.

https://www.clevelandclinicabudhabi.ae/publishingimages/careers/residency_brochure_en.pdf (*Education Department*, n.d.)

9. Align our resident application process with the DOH process listed below. Timeline: 1 year
    a. The following steps as well as details on the residency match and selection process are accessible at www.haad.ae.
        i. Required documents listed at AB-DOH:
            1. Recent passport-sized photograph
            2. Passport
            3. UAE residency visa (if available)
            4. Family book (UAE nationals)
            5. Emirates ID (if available)
            6. Residency Entrance Examination results
            7. Medical school certificate
            8. Medical school transcript
            9. IELTS 6 or higher/TOEFL 550 or higher
            10. Curriculum vitae (CV)
            11. Internship certificate/dean's letter
            12. Completed and signed CID/staff data clearance form
            13. Completed and signed dataflow Applicant Letter of Authorization
            14. Experience letters/Certificate(s) of Service
            15. Medical license
            16. Certificate(s) of Good Standing
            17. An official No Objection letter for healthcare professional working in the health sector in UAE
            18. An official No Objection letter for current residents from the program director
            19. Security clearance (e-Tarasol) barcode sheet
        ii. Enroll in TANSEEQ, the Abu Dhabi Residency Program Application and Match
            1. Applications open in February - March of every year for a period of one month (dates vary).
            2. TANSEEQ also requires completion of a 1-year internship, only allows a maximum of 3 residency applications, and has a maximum age of 35 years.

3. **Tanseeq@doh.gov.ae** (*Medical Residency Program*, n.d.)

iii. Residency Entrance Exams (EMREE), as conducted by the UAEU of Medicine and Health Sciences, are required by all residency applicants. Information regarding specific exam entry dates and requirements are listed on the Abu Dhabi DOH website by the end of the current year. **www.cmhs.uaeu.ac.ae/en/** (*Education Department*, n.d.)

10. ACGME-International (ACGME-I) future accreditation of the new FM residency. Timeline: 5 years.

    a. Importance: specialist physician vs. consultant physician status is of critical importance in the UAE where the FM scope of practice for specialist physicians is quite narrow. Graduation with a degree from an ACGME-I program confers a consultant title along with a somewhat broader scope of practice.

    b. Definition: graduate medical education programs outside the United States which meet established standards for Institutional, Foundational, and Advanced specialty education.

    c. Process: comprehensive, peer-review evaluation to improve and publicly recognize programs and sponsoring institutions in graduate medical education that meet – and often exceed – our standards of educational quality (*ACGME International* > *What Is Accreditation* > *Overview*, n.d.).

    d. Goals: the education needed to provide optimal patient care under the supervision of faculty members who not only instruct and supervise, but also serve as role models of excellence, compassion, professionalism, and scholarship.

    e. Supervision: The care of patients is undertaken with appropriate faculty supervision and graded authority and responsibility with independence which allows residents to attain the knowledge, skills, attitudes, and empathy required for autonomous practice.

f. Focus: excellence in delivery of safe, equitable, affordable, quality care; and the health of the populations they serve.

g. Diversity: Graduate medical education values the strength that a diverse group of physicians brings to medical care.

h. Lifelong Learning: Graduate medical education occurs in clinical settings that establish the foundation for practice-based and lifelong learning. The professional development of the physician, begun in medical school, continues through faculty members' modeling of the effacement of self-interest in a humanistic environment that emphasizes joy in curiosity, problem-solving, academic rigor, and discovery. This transformation is often physically, emotionally, and intellectually demanding, and occurs in a variety of clinical learning environments committed to graduate medical education and the well-being of patients, residents, fellows, faculty members, students, and all members of the health care team (*FoundInternationalresidency.Pdf*, n.d.).

i. ACGME-I Foundational Program Requirements for GME: https://www.acgme-i.org/Portals/0/FoundInternationalresidency.pdf?ver=2020-02-14-141811-923

j. **Steps in the Accreditation Process**

## Part 1 Assessment of Accreditation Preparedness and Agreement of Goals and Objectives

ACGME International LLC (ACGME-I) offers to institutions and countries outside of the United States accreditation of graduate medical education (GME) programs in selected specialties and subspecialties, and of the institutions sponsoring those programs. Accreditation is accomplished through a peer review process and is based upon established international standards and guidelines. Assessment of readiness for accreditation is the first step in the process and can take approximately three months to complete.


**Initial Contact**

Initial contact can be made by e-mailing us at acgme-i@acgme-i.org. Our staff is happy to set up a telephone or video conference to determine if ACGME-I accreditation would best meet your goals. To pursue ACGME-I accreditation, an Accreditation Preparedness Assessment (APA) visit is scheduled.

The APA visit is initiated by a formal request approved by the senior leadership of the institution or Ministry of Health or Education to the President and Chief Executive Officer, ACGME International by e-mail: acgme-i@acgme-i.org.

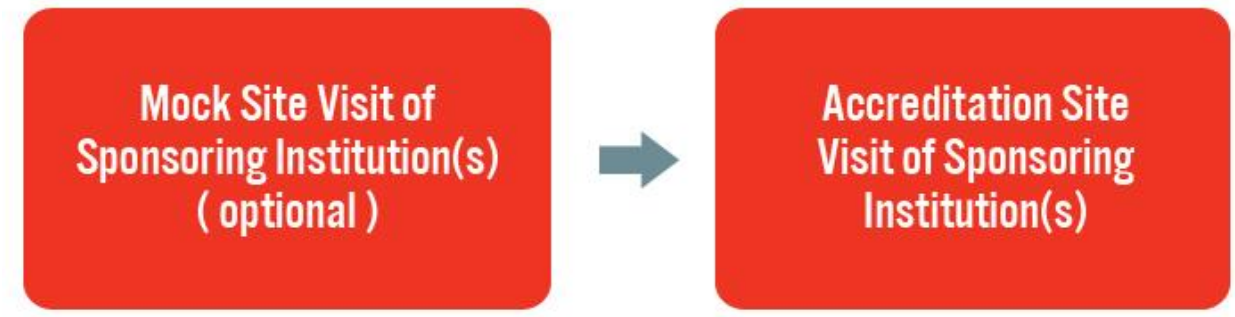
**Accreditation Preparedness Assessment (APA) Visit**

The purpose of the APA visit is to evaluate the Sponsoring Institution(s), and residency and fellowship program(s) readiness for ACGME-I accreditation. For an institution seeking accreditation, the visit includes meetings with the institution's senior leadership, the leadership of the GME endeavors (such as the individual providing institutional oversight), residency/fellowship faculty leadership, and residents/fellows as well as a guided tour of the facilities used in the education of the residents. The meetings and tour usually occur over one to two days, depending on the number of programs and institutions. If a governmental agency, such as the Ministry of Health or Ministry of Education, is seeking country-wide accreditation, the visit might take longer than two days, and in addition to the meetings listed above at each potential Sponsoring Institution, the APA visit would also include meetings with appropriate governmental officials. The assessment team includes an accreditation specialist and a member of the ACGME-I in senior leadership. After the visit, the team will prepare a report that describes the proposed steps to apply for ACGME-I accreditation for the institution(s) and residency/fellowship programs. Subsequent steps will be

based on the goals and objectives of the party seeking accreditation and the findings of the APA visit.

## Part 2 Sponsoring Institution(s) Accreditation

Institutions are evaluated against International Institutional standards that require institutional responsibility and oversight of sponsored programs, as well as set resident/fellow eligibility requirements and institutional infrastructure expectations. The International Institutional Requirements are comprised of the most important elements that define and support the required GME learning environment, as well as ensure the safety of both residents/fellows and patients on the part of the institution. Institutions must achieve Institutional Accreditation prior to applying for accreditation for any residency program.




**Mock Site Visit of Sponsoring Institution(s)**

Sponsoring Institutions can first request an optional mock site visit. The purpose of the mock site visit is to provide information to the Sponsoring Institution on any areas that may need improvement prior to the accreditation application.

The mock site visit requires the institution to first complete an institutional application that is the same web-based form used in formal accreditation visits. A mock site visit is then conducted by a current or former designated institutional official (DIO), an expert who can evaluate the sponsoring institution on its potential to meet the International Institutional Accreditation Requirements. A report of the mock site visit is prepared and reviewed by ACGME-I staff, who provide a summary report outlining the assessment of specific areas needing improvement prior to attaining International Institutional Accreditation. The results of the mock site visit are not retained to be

used during any subsequent review of the institution's application and site visit for ACGME-I Initial Accreditation.

**Accreditation of Sponsoring Institution(s)**

The International Institutional Accreditation Requirements focus on the institution's commitment to graduate medical education (GME). Commitment is demonstrated through compliance with requirements for a mission and structure devoted to GME, including establishment of a comprehensive set of impartial policies and procedures and adequate allocation of resources.

The Sponsoring Institution completes the web-based International Institutional Accreditation Application. The Review Committee-International reviews the application to make an accreditation determination to either grant Initial Accreditation for a period of one-to-two years, or to Withhold Accreditation.

## Part 3 Accreditation of Residency/Fellowship Programs

Following attainment of Institutional Accreditation residency/fellowship programs can begin the accreditation application process. Residency and fellowship program accreditation is assessed on compliance with two sets of standards: International Foundational Requirements and International Advanced Specialty Requirements. It is possible for a program to receive International Foundational Accreditation but not Advanced Specialty Accreditation. In order to achieve International Advanced Specialty Accreditation, the program must first achieve International Foundational Accreditation. Both Foundational and Advanced Specialty Accreditation can be attained at the same time.

**Mock Site Visit of Residency/Fellowship Program**

Residency/fellowship programs can first complete an optional mock site visit. The purpose of the mock site visit is to provide information to the residency/fellowship on any areas that may need improvement prior to submitting the accreditation application.

The mock site visit requires the program to first complete an accreditation application that is the same web-based form used in formal accreditation visits. A report of the mock site visit is prepared and reviewed by members of the ACGME-I Review Committee, who provide a summary report outlining their assessment of specific areas needing improvement prior to the programs attaining International Foundational and Advanced Specialty Accreditation. The results of the mock site visit are not used during any subsequent review of the program's application and site visit for ACGME-I Initial Accreditation.

**Accreditation site visit of Residency program**

During the review process, programs are first evaluated against the International Foundational Requirements, and if they attain Initial Accreditation, they are then reviewed for Advanced Specialty Accreditation.

Program application involves entering information into a web-based system used to determine Foundational Accreditation, and completion of the Advanced Specialty application specific to the given specialty. The program then undergoes a site visit conducted by an ACGME-I site visitor. The ACGME-I Review Committee reviews the report of the site visit to make an accreditation determination (*ACGME International* > *Accreditation Process* > *Overview*, n.d.).

11. To achieve the above general residency objectives within 5 years.

## Step 3 – Educational Objectives for the FM Residency:

1. Use of competency-based education standards with EPAs in the curriculum creation to stay in line with ACGME-prescribed current residency education standards. Timeline: 1 – 2 years.

2. Family Medicine Residency CURRICULUM GUIDELINES introduction:

This Curriculum Guideline defines a recommended training strategy for family medicine residents. Attitudes, behaviors, knowledge, and skills that are critical to family medicine should be attained through longitudinal experience that promotes educational competencies defined by the Accreditation Council for Graduate Medical Education (ACGME) www.acgme.org.

Program requirements specific to family medicine residencies may be found on the ACGME website. Current AAFP Curriculum Guidelines may be found online at www.aafp.org/cg. These guidelines are periodically updated and endorsed by the AAFP and, in many instances, other specialty societies, as indicated on each guideline.

Please note that the term "manage" occurs frequently in AAFP Curriculum Guidelines. "Manage" is used in a broad sense to indicate that the family physician takes responsibility for ensuring that optimal, complete care is provided to the patient. This does not necessarily mean that all aspects of care need to be directly delivered personally by the family physician. Management may include appropriate referral to other health care providers, including other specialists, for evaluation and treatment (*FoundInternationalresidency.Pdf*, n.d.) (*ACGME International > Accreditation Process > Overview*, n.d.) AAFP REPRINT NO. 278).

a. **AAFP ACGME-I Compliant Competency based Comprehensive FMR Curriculum:**
    i. Adolescent Health (Coram, n.d.-b)
    ii. Allergy and Immunology (*Recommended Curriculum Guidelines for Family Medicine Residents: Allergy and Immunology*, n.d., p. 274)
    iii. Care of Infants and Children (*Reprint260_InfantChild.Pdf*, n.d.)
    iv. Care of Older Adults (Bucholtz, n.d.)
    v. Care of the Critically Ill Adult (*Recommended Curriculum Guidelines for Family Medicine Residents: Care of the Critically Ill*, n.d., p. 291)
    vi. Cardiovascular Medicine (Meyerink, n.d.)
    vii. Care of the Surgical Patient (Coram, n.d.-e)
    viii. Chronic Pain Management (*Reprint286_Pain.Pdf*, n.d.)
    ix. Conditions of the Eye (*Recommended Curriculum Guidelines for Family Medicine Residents Conditions of the Eye*, n.d.)
    x. Conditions of the Nervous System (*Reprint272_Nervous.Pdf*, n.d.)

xi. Conditions of the Skin (*Reprint271_Skin.Pdf*, n.d.)

xii. Disaster Medicine (Scott, n.d.)

xiii. Global Health (*AAFP Reprint No 287 Recommended Curriculum Guidelines for Family Medicine Residents Global Health*, n.d.)

xiv. Health Promotion and Disease Prevention (*Recommended Curriculum Guidelines for Family Medicine Residents Health Promotion and Disease Prevention*, n.d.)

xv. Health Systems Management (*Reprint290C_Health Systems Management.Pdf*, n.d.)

xvi. HIV Infection/AIDS (Allen, n.d.)

xvii. Human Behavior and Mental Health (*Recommended Curriculum Guidelines for Family Medicine Residents: Human Behavior and Mental Health*, n.d.)

xviii. Leadership (*Reprint292_Leadership.Pdf*, n.d.)

xix. Maternity Care (*Reprint261_Maternity.Pdf*, n.d.)

xx. Medical Ethics (*AAFP Reprint No. 279, Recommended Curriculum Guidelines for Family Medicine Residents Medical Ethics*, n.d.)

xxi. Medical Genetics (Coram, n.d.-a)

xxii. Medical Informatics (Mitchell, n.d.)

xxiii. Men's Health (*Recommended Curriculum Guidelines for Family Medicine Residents Men's Health*, n.d.)

xxiv. Musculoskeletal and Sports Medicine (*Reprint265_Musculo.Pdf*, n.d.)

xxv. Nutrition (*Recommended Curriculum Guidelines for Family Medicine Residents: Nutrition*, n.d.)

xxvi. Occupational Medicine (*Recommended Curriculum Guidelines for Family Medicine Residents Occupational Medicine*, n.d.)

xxvii. Office Laboratory Medicine (*Recommended Curriculum Guidelines for Family Medicine Residents: Office Laboratory Medicine*, n.d.)

xxviii. Palliative and End-of-Life Care (*Recommended Curriculum Guidelines for Family Medicine Residents: Palliative and End-of-Life Care*, n.d.)

xxix. Patient Education (*Recommended Curriculum Guidelines for Family Medicine Residents: Patient Education*, n.d.)

xxx. Patient Safety (*Recommended Curriculum Guidelines for Family Medicine Residents*, n.d.-a)

xxxi. Physician Leadership in the Patient-Centered Medical Home (*Reprint268_PCMH.Pdf*, n.d.)

xxxii. Physician Well-Being (*Recommended Curriculum Guidelines for Family Medicine Residents*, n.d.-b)

xxxiii. Point of Care Ultrasound (*Reprint290D_POCUS.Pdf*, n.d.)

xxxiv. Practice Based Learning and Improvement (*Reprint289C_Learning.Pdf*, n.d.)

xxxv. Residents as Teachers and Precepting in Postgraduate Practice (*Reprint290B_Postgraduate.Pdf*, n.d.)

xxxvi. Rheumatic Conditions (Coram, n.d.-f)

xxxvii. Risk Management and Medical Liability (*Reprint281_Risk.Pdf*, n.d.)

xxxviii. Scholarly Activity and Information Mastery (*Reprint280_Scholarly.Pdf*, n.d.)

xxxix. Substance Use Disorders (Coram, n.d.-c)

xl. Urgent and Emergent Care (Ikerd, n.d.)

xli. Urban Practice Curriculum (*Reprint289B_Urban.Pdf*, n.d.)

xlii. Women's Health and Gynecologic Care (Coram, n.d.-d)

xliii. Wound Care (R(*Recommended Curriculum Guidelines for Family Medicine Residents Wound Care*, n.d.)

b. **American University of Beirut (AUB) - FM curriculum by traditional rotational category:**
https://www.aub.edu.lb/fm/FamilyMedicine/PublishingImages/Pages/ResidencyProgram/residents%20objective.pdf (*Residents Objective.Pdf*, n.d.)

c. **Aswan Family Medicine Residency Curriculum Overview:**

i. An Egyptian FMR that used AAFP/ACGME-based curricula that appear to be arranged in EPA as required by ACGME-I and is adapted to a Middle Eastern setting.

ii. Aswan Family Medicine Residency Curriculum - Milad Final (1).doc
Aswan Suez FMR Curricular Matrix 2011 (1).xls

3. Create a FMR rotation schedule by year for the 4-year residency cycle. Timeline: 1 – 2 years.
    a. **AUB - FM rotation templates** https://www.aub.edu.lb/fm/FamilyMedicine/PublishingImages/Pages/ResidencyProgram/res_template.pdf (*Res_template.Pdf*, n.d.)
    b. **Aswan FMR** 3-year rotation template: AFMR 3 Year Curriculum.docx

4. Create the Family Medicine Residency with a foundational FM rotation that includes an inpatient FM rotation, an outpatient FM rotation, as well as a weekly presence in Family Medicine clinic for the longitudinal care of a patient panel beginning at year 1 and increasing in frequency through year 4. Timeline: 1 – 2 years.

5. Create FM Orientation schedule for first one to two months of FMR at Kanad Hospital. Timeline: 1 – 2 years.
    a. Items for inclusion:
        i. Orientation checklist
        ii. Ethics & standards introduction
        iii. Team building
        iv. Mentor assignment
        v. BLS/ACLS, ATLS, PALS, NRP
        vi. Charting Expectations
    **b. Aswan FMR New Resident Orientation Excel Spreadsheet,** for example: **New Resident Orientation Checklist.xlsx**

6. Create FM curriculum to train residents in the core inpatient and outpatient IM competencies: Cardiology, Chronic Pain Management, Dermatology, Emergency Medicine, Endocrinology, Gastroenterology, Hematology/Oncology, Infectious Disease, Intensive Care Unit Rotation, Nephrology, Neurology, Occupational Medicine, Pulmonology, Rheumatology, IM hospitalist inpatient rotation (see above AUB-FM rotational schedule).

7. Create FM curriculum to train residents in the core inpatient and outpatient Surgical competencies: General Surgery, Ophthalmology, ENT, Orthopedics/Sports Medicine rotations (see above AUB-FM rotational schedule).

8. Create FM curriculum to train residents in the core Radiology competencies.

9. Create FM curriculum to train residents in the core Emergency Medicine competencies with a suturing workshop.

10. Create FM curriculum to train residents in the core inpatient and outpatient Women's Health competencies: Gynecology, Obstetrics with birthing center rotation, medical care of the pregnant patient, Maternal/Fetal Medicine, female Physiotherapy rotation.

11. Create FM curriculum to train residents in the core inpatient and outpatient Pediatric competencies: General Pediatrics, Neonatal Intensive Care, Normal Newborn Nursery rotation, newborn resuscitation workshops for high resource resuscitation using the Neonatal Resuscitation Program (NRP) and the STABLE Program during their inpatient newborn rotation, newborn resuscitation in low-resource setting care from Helping Babies Breathe and Essential Newborn Care Program during their inpatient FM newborn rotation. With the following competencies:
    a. Demonstrate healthcare needs of newborns at delivery, include ventilatory support when appropriate through simulation.
    b. Summary assessment of delivery risks for mothers and newborns.
    c. Demonstrate teaching newborn healthcare skills to other providers via role play.
    d. Newborn care in low-resource setting from Newborn Essentials during their inpatient newborn rotation.
    e. Provide essential care needed by every newborn.
    f. Identify danger signs in newborns who require special care.
    g. Provide feeding for small babies.
    h. Educate parents in home care.
    i. Transfer baby healthcare skills to other providers.

12. Create FM curriculum to train residents in the core inpatient and outpatient Mental Health competencies: Psychiatry, Whole Person Care which is inclusive of self-care, spiritual care,

hospice, counseling training and gender/cultural sensitivity training. Also included here: Readings in Family Medicine (postpartum rotation).

13. Creation of potential fifth year of FMR for selected residents desiring more procedural training including obstetrical care in OB theatre for specific practices outside of the UAE but still within the Middle East region. These rotations could include external site in likeminded residencies throughout the region such as North Africa, Kazakhstan, etc.

14. Some of these core and elective rotations could be two to four weeks in length and could be off-site as the availability of specialty physicians allows. Other electives to be discussed include Introduction of Healthcare Administration and a FM international rotation.

15. Create a Department of Family Medicine Residents' Manual. Examples include:
    a. **AUB – FMR Resident Manuel**
    https://www.aub.edu.lb/fm/FamilyMedicine/PublishingImages/Pages/ResidencyProgram/residents%20manual.pdf (*Residents Manual.Pdf*, n.d.)
    b. **Aswan FMR Resident Policies Handbook**
    **AFMR Expectations and Policies Handbook 2018 Jan 25.docx**

16. Obtain copies of the resident/residency requirements of the Arab Board of Family Medicine.

## Step 4 – Educational Strategies/Methods:

1. Evaluate the student pre-residency competencies typical for the UAE medical schools. This would establish a baseline prior knowledge of the first-year residents. Timeline: 1-2 years. Consider incorporating the first year internship into the FMR. UAEU Family Medicine Clerkship curriculum to evaluate the residents based off of these expectations: Family Medicine Clerkship Handbook 2020-2021 Final.docx.

2. Evaluate for Middle Eastern, culture-specific learning styles in order to be culturally sensitive.

3. Teaching methods:
    a. Direct patient care with supervision and bedside core faculty instruction
    b. Self-directed readings
    c. Structured didactic lectures and noon conferences/block lecture schedule
        i. Catalog of lectures chart by system: High Priority Lecture Topics for New Residents.docx
        ii. Society of Teachers of Family Medicine (STFM)/Association of Family Medicine Residency Directors (AFMRD) Residency Curriculum Resource (RCR) (*AFMRD : Residency Curriculum Resource*, n.d.)
            1. Evidence Based Medicine power point lecture series on broad topics specifically for resident education (Graham et al., n.d.)
            2. https://www.afmrd.org/page/residency-curriculum-resource-1127
    d. Online learning resources
    e. Large and small group discussion groups with structures such as PBL/IBL styles, team-based learning, peer teaching with a flipped classroom, and M&M panel
    f. Role model/mentor assignment with behavioral interventions
    g. Demonstration of procedural skills with workshops with pre-course learning, pre-test, post-test structure (summative evaluation), procedural skills proficiency, and team leadership skills proficiency.
    h. Simulation-based learning

4. Protection of FM core faculty time to include 50% of time for administrative duties related to the FMR, 25% of time for clinical duties and direct patient care, and 25% of time in direct resident supervision for precepting. As well as the encouragement for visiting faculty to help with teaching (Dr. G. Zubrod, personal communication, n.d.).

5. The FM curriculum must include structured clinical experiences. Much of the resident's knowledge will be gained by caring for ambulatory patients who visit the family medicine center, although additional experience gained in various other settings (e.g., an inpatient setting, a patient's home, the urgent care clinic, the community) is critical for well-rounded

residency training. The residents should be able to develop a skillset and apply their skills appropriately to all patient care settings (*FoundInternationalresidency.Pdf*, n.d.).

6. With an emphasis on outcomes-oriented, evidence-based studies that delineate common diseases affecting patients of all ages. Patient-centered care, and targeted techniques of health promotion and disease prevention are hallmarks of family medicine and should be integrated in all settings. Appropriate referral patterns, transitions of care, and the provision of cost-effective care should also be part of the curriculum.

7. Creation of a healthy residency culture of support, openness and respect towards fellow residents, faculty, patients, and different segments of society including different sexes, races, religions, and socioeconomic statuses. Timeline: ongoing.

8. Create an environment of debriefing for residents after difficult patients that also involves an Ethics Committee if needed and available. Timeline: ongoing.

9. Obtain buy-in for the physician clinical consultant hospital staff as volunteer clinical faculty.

10. Foster collaborative spirit amongst the physicians, nurses, and staff within all hospital departments by emphasizing our desire to serve them. This will also achieve an emphasis on FM resident cultural and professional lifelong humility. Timeline: ongoing

11. Improve resident communication skills with attendings, FM faculty, families and patients focusing on AIDET and SBAR based communications.

12. Improve the understanding of patient and family privacy with emphasis on HIPPA violation definitions even if that isn't formalized in the UAE.

13. Implement a resident-led monthly Resident Meeting – teaches leadership, critical thinking skills, meeting management skills, as well as improves communication. Timeline: immediate upon residency initiation.

## Step 5 – Implementation Considerations:

1. Assessment of the levels of political support needed currently for this creation:
    a. Kanad Hospital's FM providers
    b. Kanad Hospital administrative executive team
    c. Kanad Hospital's physician consultant staff
    d. Kanad Hospital's and True Sojourner's boards of directors
    e. Kanad Hospital's Emirati patient population
    f. UAE DOH
    g. Consultant physician staff at other Al Ain hospitals where we would need external rotations
    h. Other external hospital stakeholders & founding sheiks

2. Assessment of financial resources for faculty salaries, physical space, technology & materials, resident salaries, adequate administrative staff salaries, etc. Financial resources available from governmental programs, royal family relationships, and grants. Governmental sources are available, specifically the increased THIQA/DOMAN governmental insurance reimbursement calculation for education based off of DRGs and quality metrics data. The government also pays the intern and hospital as well as the increased DRG rate.

3. Assessment of physical space for a residency and residents' living arrangements in the community.

4. Assessment of adequate family medicine patient base for clinical experience as well as adequate numbers of patients in the different specialties involved in FM training.

5. Assessment of FM physicians' knowledge base for faculty teaching skills, administrative skills for FM Residency leadership and operations.

6. Assessment of adequate number of FM staff for faculty coverage including program director, curriculum director, rotation coordinator, etc.

7. Assessment of the requirements for accreditation of an UAE FM residency.

8. Discuss with the stakeholders an acceptable implementation timeline, residency size, marketing plans and future vision-casting.

Anticipated Barriers to Implementation:

1. Turf battles with UAE consultants' cultural views of the typical FM scope of practice as outpatient practice with no inpatient care, OB care or initial newborn care.

2. UAE/Arab cultural views including from the Ministry of Health along those same lines for a very narrow FM scope of practice. Rural practices, even in the UAE, have a broader scope of practice for FM doctors.

3. Narrow, young, and relatively healthy Kanad patient population and thus limited exposure to broader patient and disease selection. Thus, the reliance upon external hospital and volunteer faculty to train and influence our residents.

4. Financial Barriers

5. Current physical space and EMR limitations.

6. Time constraints for the FM physicians as core faculty in light of language learning and other hospital employment responsibilities.

7. Current UAE liability involves criminal charges if negligence occurs for the resident and the attending. This limits the desirability of medical education for volunteer faculty who note an increase in risk of liability for a volunteer clinical position for teaching. Significant liability reform would protect faculty and hospitals and encourage medical education in a fuller setting.

8. Cultural honor/shame limitations for transparent evaluation and/or discipline for residents. This setting potentially involves a power differential where the resident>>faculty. In that setting, the resident complaints lead to pressure on the hospital, residency or faculty. This could lead to lack of justice, superficial evaluations and poor learning environment.

Per UAEU Medical School faculty interviews, Kanad Hospital past CEO Dr. Tim Fincher & current FM HOD Dr. Kris Crawford interviews, and personal observation across broad spectrum of consultant interviews (Dr. T. Fincher & Dr. K. Crawford, personal communication, December 8, 2021), (Dr. Jeff King, personal communication, February 8, 2022).

## Step 6 – Evaluation/Feedback:

Identified Users: to and for the FM residents, FM faculty, volunteer specialist faculty. Consider other stakeholders here especially in the honor/shame culture.

Identified Uses:

1. Evaluate the lectures, clinical rotations, and faculty effectiveness.

2. Evaluate whether residency rotations are meeting the learning goals and objectives/EPAs.

3. Educate faculty on formative feedback and summative evaluation and the importance of both and the skills to give both types effectively.

4. Feedback on the Program itself in terms of effectiveness and performance.

5. Preparation for Arab/US FM board certification success and ultimately success with certification.

Identify Resource Effectiveness:

1. Evaluation of financial resources as mentioned above.

2. Evaluation of the physical spaces for adequate care of the residents, their families and their professional training.

3. Evaluation of continuing political support of the residency from internal/external stakeholders.

4. Evaluation of adequate faculty, support personnel, time and administrative work to support the residency.

5. Evaluate whether adequate communication occurring for all stakeholders involved.

6. Evaluate whether equipment and technology are present for the residency.

Evaluation questions/designs/methods:

1. Resident learning/knowledge/skills evaluation: Family Medicine Milestones.

   A. The Milestones are designed only for use in evaluation of residents in the context of their participation in ACGME-accredited residency programs. The Milestones provide a framework for the assessment of the development of the resident in key dimensions of the elements of physician competency in the specialty. They neither represent the entirety of the dimensions of the six domains of physician competency, nor are they designed to be relevant in any other context. https://www.acgme.org/specialties/family-medicine/milestones/

   B. Understanding Milestone Levels and Reporting: a semi-annual review of resident performance, and then report to the ACGME. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME Competencies organized in a developmental framework. The narrative descriptions are targets for resident performance throughout their educational program. Milestones are arranged into levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert resident. For each reporting period, the Clinical Competency Committee will review the completed evaluations to select the milestone levels that best describe

each learner's current performance, abilities, and attributes for each sub-competency. These levels do not correspond with post-graduate year of education. Depending on previous experience, a junior resident may achieve higher levels early in his/her educational program just as a senior resident may be at a lower level later in his/her educational program. There is no predetermined timing for a resident to attain any particular level. Residents may also regress in achievement of their milestones. This may happen for many reasons, such as overscoring in a previous review, a disjointed experience in a particular procedure, or a significant act by the resident. Selection of a level implies the resident substantially demonstrates the milestones in that level, as well as those in lower levels (*Familymedicinemilestones.Pdf*, n.d.).

2. Creation of succinct stakeholder questionnaires, summative evaluation forms for FM core faculty and volunteer clinical faculty, knowledge assessments after each clinical rotation and in preparation for FM Board certification testing. Yearly resident self-assessments for knowledge base, internal evaluation of work/life balance, perception of adequate training, development of professionalism, success of mentorship. Timeline: 2 years.

3. Development of clinical assessment forms for faculty to provide summative evaluation of residents. Timeline: 2 years.

4. Development of the faculty assessment forms for the residents to complete after each of their clinical rotations. Timeline: 2 years.

5. Development of procedural logs (Circumcision, UVC line placement, IV placement, newborn intubation, etc.) for resident skills competency documentation. Timeline: 2 years.

    A. Tracking of procedural logs for adequate procedural skills testing.
    B. The Case Log System is a web application within ADS where residents and fellows (in certain specialties) are required to log their clinical experiences on an individual case basis. Depending on the specialty, the components used to build these cases are Common Procedural Terminology (CPT) codes, International Classification of Diseases (ICD9) codes, and/or descriptors. Programs have access

to the system and are able to review the information logged by their residents or fellows through the reporting and search tools. This data is grouped into specialty-specific categories by the Review Committees, and may be used as program performance indicators (*Case Log System*, n.d.). https://acgme.org/data-collection-systems/case-log-system/

6. FM faculty CME tracking in combination with maintenance of FM board certification as well as maintenance of ACLS, ATLS, PALS, NRP certification.

7. Development of data commutation accuracy and the staff to complete that data collection and analysis.

8. Report the data back in communication to the stakeholders including the residents, faculty, volunteer faculty, hospital administration and other external stakeholders as needed.

9. Faculty training for adequate clinical teaching skills and standardized resident formative and summative evaluation by new faculty.

10. Ethical Concerns:
    A. Evaluation of appropriate resident and faculty workweek hours with appropriate attention to healthy personal boundaries within the expected demands of the profession of medicine in the real world.
    B. Professional humility, cultural sensitivity and character training of residents and faculty including patient/partner confidentiality.
    C. Resource Allocation – communication and accountability for residency finances to the residency stakeholders.

## **Conclusion:**

This effort will serve as my submission for my Masters in International Medicine Clinical Capstone Scholarly Project. Hopefully, this also serves as a template to be presented to the UAE DOH at a time when the implementation components are complete.

Significant work is required to create this new FM residency curriculum, a timeline for residency development, faculty training, development of hospital stakeholder support, and residency accreditation upon many other action steps. Assessment of the levels of support needed currently for this creation include the numerous consultant departments, other Al Ain hospitals for external subspecialty training, the UAE's DOH support, public relations for community support, and medical student and patient recruitment. The task seems daunting! However, the desire, teamwork and support staff, including hospital administrative support, seems present to accomplish such a lofty but worthy goal.

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