KIMS
Kuwait Institute for Medical Specialization

ROYAL COLLEGE
OF PHYSICIANS AND SURGEONS OF CANADA
COLLÈGE ROYAL
DES MÉDECINS ET CHIRURGIENS DU CANADA

DEPARTMENT OF INTERNAL MEDICINE

Kuwait Internal Medicine Residency Program
Curriculum Rotation Educational Goals and Objectives
Categorized by CanMEDS Competencies

Welcome

The Kuwait Internal Medicine Residency Program was established in 1987. The program is the only formal training internal medicine program in Kuwait. Our program is sponsored by Kuwait Institute for Medical Specializations (KIMS). Residents rotate in several public hospitals in Kuwait as well several subspecialty hospitals. We have assembled accomplished faculty members who are dedicated to this residency program. Our internal medicine residency curriculum is dynamic, as we are constantly striving to set higher level standard to meet the health care of our citizens. Among our top priorities include meeting or exceeding all requirements of the residency review committee of The Royal College of Physicians And Surgeons Of Canada. We are also committed to ensuring our graduates successfully pass the Kuwaiti Internal Medicine Board Exam. Whether your future goal is fellowship training, hospital medicine or general internal medicine career path, we trust you will find our program meet your expectations. We invite you to take a closer look at our program.

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Introduction

I. MISSION STATMENT

The mission of Internal Medicine Residency Program is to provide the highest quality of education and training for physicians in Kuwait, and to enable graduates to meet the health care needs of Kuwaiti population.

II. OVERVIEW

A. LIST OF CanMEDS CORE COMPETENCIES. Adopted from the updated 2015 CanMEDS. http://www.royalcollege.ca/rcsite/canmeds/canmeds-framework-e. (Accessed December 12th, 2017).

1. Medical Expert

Practice medicine within their defined scope of practice and expertise
Perform a patient-centered clinical assessment and establish a management plan
Plan and perform procedures and therapies for the purpose of assessment and/or management
Establish plans for ongoing care and, when appropriate, timely consultation
Actively contribute, as an individual and as a member of a team providing care, to the continuous improvement of health care quality and patient safety

2. Communicator

Establish professional therapeutic relationships with patients and their families
Elicit and synthesize accurate and relevant information, incorporating the perspectives of patients and their families
Share health care information and plans with patients and their families
Engage patients and their families in developing plans that reflect the patient's health care needs and goals
Document and share written and electronic information about the medical encounter to optimize clinical decision-making, patient safety, confidentiality, and privacy

3. Collaborator

Work effectively with physicians and other colleagues in the health care professions
Work with physicians and other colleagues in the health care professions to promote understanding, manage differences, and resolve conflicts
Hand over the care of a patient to another health care professional to facilitate continuity of safe patient care

4. Leader

Contribute to the improvement of health care delivery in teams, organizations, and systems

Engage in the stewardship of health care resources
Demonstrate leadership in professional practice
Manage career planning, finances, and health human resources in a practice

5. **Health Advocate**
   Respond to an individual patient's health needs by advocating with the patient within and beyond the clinical environment
   Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner

6. **Scholar**
   Engage in the continuous enhancement of their professional activities through ongoing learning
   Teach students, residents, the public, and other health care professionals
   Integrate best available evidence into practice
   Contribute to the creation and dissemination of knowledge and practices applicable to health

7. **Professional**
   Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards
   Demonstrate a commitment to society by recognizing and responding to societal expectations in health care
   Demonstrate a commitment to the profession by adhering to standards and participating in physician-led regulation
   Demonstrate a commitment to physician health and well-being to foster optimal patient care

B. PRINCIPAL LEARNING ACTIVITIES

1. **Core Conference Lecture**
   A weekly series in which core topics in internal medicine are presented. The topics begin each year with an Emergency Lecture Series covering urgent and emergent management of a variety of medical disorders, and proceed through a core curriculum in Internal Medicine. Specifically, lectures are strategically organized by the academic subcommittee in collaboration with core faculty from other subspecialty departments, following the North American Curriculum. .

2. **Board Review**
   One of the chief residents is assigned a set of MKSAP questions associated with the week's lecture series, and he/she prepares an interactive review session in which housestaff answer questions using an anonymous electronic response system, and the answers are then reviewed in detail with discussion of the concepts and rationale underlying the correct answer to the question.

Additionally, R5 residents are scheduled for a 2-week block exclusively dedicated for board study. In this block, one of the chief residents will lead an interactive review session. Each group will meet separately on daily basis for 6-hour block.

3. **Morning Report**
   This is a daily meeting where admissions from the previous night are presented followed by case discussion. Residents rotating on inpatient medicine service and subspecialty services (nephrology, cardiology, neurology, rheumatology, hematology, oncology, infectious diseases, endocrinology, pulmonology, gastroenterology) present specific cases of commonly seen presentations, with emphasis on the diagnostic and therapeutic approaches. This portion of the conference provides residents the opportunity to participate in discussions with peers and attendings to better develop a fundamental framework for approaching specific patient complaints while also learning clinical clues and nuances that aid in diagnosis and management.

4. **Noon Conference**
   An hour of protected educational time is provided twice weekly at the end of the working day from 1:00 pm to 2:00 pm. These lecture series include:

   I. **Clinical Lectures**
   Clinical lecture's focus on the various specialty medicine topics for nine months of the year, i.e., Cardiology, Nephrology, Endocrinology, etc. These conferences are presented by subspecialty Clinical Tutors from various respective medicine specialties. All residents on inpatient floor teams, as well as those on ambulatory block rotations and electives, are expected to attend.

   II. **Grand Rounds**
   The Department of Medicine hosts Grand Rounds once a month. Lectures are presented by both core faculty and visiting professors and cover a variety of clinically relevant and thought-provoking topics in internal medicine. All residents on inpatient floor teams, as well as those on ambulatory block rotations and electives are expected to attend.

   III. **Medical Jeopardy**
   Medical Jeopardy is held once a month. Residents form teams and compete against each other for bragging rights.

   IV. **Morbidity and Mortality Conference**
   The M&M Conference is held occasionally throughout the year. A case, with an adverse outcome is discussed and thoroughly reviewed. Faculty members from various disciplines are invited to attend, especially if they were involved in the care of the patient. The discussion focuses on how care could have been improved.

   V. **Journal Club**
   Journal Club is held bimonthly. Residents and faculty critically appraise a selected article; the article is discussed in an evidence based medicine format. A senior resident will be asked to lead the discussion of a recent, clinically-impactful article

addressing the goals of the article, its methods, results, and significance to clinical practice. The objective is for residents develop a conceptual framework for approaching medical literature and assessing its relevance to practice.

5. **Attending Rounds**
   Daily usually from 9:00am to noon, patients are presented to the attending physician on the inpatient medicine service. Bedside teaching is regularly included in the rounds. Occasionally specialty cases are presented for discussion depending upon the interests of the attending physician. Learning activities include the physical exam, a discussion of particular medical diseases, psychosocial and ethical themes, and management issues.

6. **Tutor Supervision**
   Residents learn procedures under the direct supervision of an attending physician during some rotations. For example, in the Medical Intensive Care Unit the Pulmonary /Critical Care attending or attending critical care anesthesiologist observe the placement of central venous lines, endotracheal intubation and other procedures pertinent to internal medicine practice.

7. **Direct Patient Care**
   As integral part of Medical Teaching Unit, residents rotating on MTU admit their own patients and are responsible for the ongoing care including management and discharge. The attending physician supervises patient management.

SAMPLE CURICULUM

	Level	MTU	ICU	CCU	Emergency	Selective	Electives
Junior	R1	6	1	1		4	
	R2	4		2	2	4	
Senior	R3	6	2			2	2
	R4	8				4	
	R5	6				4	2
	Total	30	3	3	2	18	4

PGY I/II*:
REQUIRED: 10 moths of General Inpatient Medicine; 3 months of CCU; 1 months of ICU.
SELECTIVES: 8 months of Selective
VACATION: 2 months

PGY 111/IV:
REQUIRED: 14 months of General Inpatient Medicine
SELECTIVES: 6 months Selective and 2 months of Electives
VACATION: 2 months

PGY V*:
REQUIRED: 6 months of General Inpatient Medicine
SELECTIVES: 4 months Selective and 2 months of Electives
VACATION: 1 month

***SELECTIVES ROTATIONS**
RHEUMATOLOGY
ENDOCRINOLOGY AND DIABETES
NEUROLOGY
INFECTIOUS DISEASE
CARDIOLOGY
RESPITATORY
NEPHROOGY
HEAMATOLOGY
ONCOLOGY
ALLERGY AND IMMUNOLOGY
OBSTETRIC MEDICINE
DERMATOLOGY
GERIATRIC

Medical (Inpatient) Teaching Unit (MTU):

- **Welcome to MTU.**

This document/booklet is intended to provide a brief orientation to the MTU. Our aim is to define your role, responsibilities, expectations and the evaluation process. This document/booklet is intended to be read during first week on MTU so all – site coordinator, clinical tutors (AKA supervising attending) and House Staff (AKA residents) – are clear about their responsibilities and expectations.

We understand some units in other hospitals have different and unique approach to teaching, which is fine. Our intent in establishing a MTU program is that we standardized our inpatient teaching across all 6 public teaching hospitals by establishing the same protocol, and to enable our housestaff to take graduated level of responsibilities depending on their level, with ultimate goal to be able to independently run the team under the supervision of attending physician but minimal guidance and input.

PLEASE NOTE IT IS EXPECTED THAT ALL TEAM MEMBERS – CLINCAL SITE COORDINATOR, ATTENDING PHYSICIANS, INTENRAL MEDICINE PROGRAM DIRECTOR AND ALL HOUSE STAFF AGREE IN GOOD FAITH TO ABIDE BY THESE GUIDELINES.

- **Overview of Teams:**

A typical care team consists of a (1) supervising attending, (2) one upper level resident (PGY3-5), (3) one or two interns and second year residents, and (4) often medical student(s). Additionally, there will be an experienced registrar who is not part of residency program or teaching service will float to assist junior staff. In the future, (as the pharm D program at college of pharmacy grows), we also hope to incorporate a pharmacy doctorate candidate (pharm D candidate) on some teams (as the pharm D program at college of pharmacy grows)

A hierarchy of increasing authority and responsibility as experience is gained is embedded in the team.
The supervising attending is expected to provide the appropriate amount of direct resident supervision necessary for safe and effective patient care. Judgments on delegation of responsibility are made by the attending supervising physician; based on his or her direct observation and knowledge of each team member's skills and ability.

The upper level resident is expected to supervise and guide the interns and students, and the degree of direct supervision provided should be dictated by the intern's clinical abilities. The degree of supervision may vary with the clinical circumstances and the developmental stage of the resident. Attending rounds provide a format for in-depth discussion of clinical presentation, pathophysiology, and management.

All major clinical decisions are discussed and all plans are reviewed with an attending, either in rounds or when appropriate throughout the day.

- **Organization:**

To ensure optimal exposure and continuity of care between the supervising attendings and residents on the service, the supervising attending will remain on the service for, at least, two consecutive weeks.

Weekend Rounds:

Weekend cross cover round – the call schedule is collectively developed with input from all team members. Two junior residents will round with the supervising attending or one of the senior residents.

Weekend post call round – one junior resident will round with the supervising attending or senior resident only a newly admitted patients and patients who are critically ill and need follow up.

New Patient Assignment:
In general, on call resident is responsible for admitting ALL patients for both teaching and non-teaching service. However, if the non-teaching service has issues with clinical decision making process at the time of admission, we advise that a designated staff physician from the nonteaching service be on phone call at all times, so that the on-call resident can discuss each and every admission with them. This way – the house staff ensures that care is optimized. Otherwise, the non-teaching service agrees to abdicate all clinical decision making to the on-call team. Alternatively, the registrar who is not part of the residency program admits all non-teaching service patients.

Each R1/R2 carries up to 5-6 max patients. In essence, a teaching team assigned two junior residents can carry more than 10-12 patients, but the additional patients are cared for by registrar (UNDER NO CIRUCMSTANCES THE SENIOR RESIDENT CARRIES PATIENTS ON ROUNDS UNLESS WHEN THE JUNIOR RESIDENT IS ON SICK LEAVE)

Sick Coverage/Vacation Coverage/Ministry of Health/Academic Coverage:
Undoubtedly, we all have responsibilities and commitments; things come up. We ask that you exercise good judgment and responsibility. Please plan ahead. When you know you are going to gone, please arrange with your team members cross coverage during your absence ahead of time. Any unexcused absence will not be tolerated or accepted. You will be assigned extra call for any unexcused absence.

To abide by residency rules, each resident (juniors and seniors) are entitled to one day off per week. Day off does not have to fall on a weekend day.

On Call Responsibilities:

1. **Medical student will work/assigned at the discretion of senior resident on-call.**
2. **Junior residents (R1/R2) will be on cross-cover and facilitate admission process once newly admit patients is transferred to the medical ward. It is the responsibility of the junior resident to follow up on all labs, EKG, consults, and imaging studies. To this end, it**

is crucial the junior resident document all follow up to ensure that she/he has appropriately follow up in a timely fashion (Remember if it is not documented, it means, you have not done it).

3. **Senior resident (R3/R4) is responsible for new admissions. Senior resident is capped at no more than 10 admissions during their on-call shift. R3/R4 is not responsible addressing new consults when on call. It is the responsibility of senior registrar or acting senior registrar (R5) to attend to new consults. Management of any newly admitted patient who is deemed to be critically ill (i.e. patient in resuscitation room) should be overseen in conjunction with senior registrar or acting senior registrar (R5). Under no circumstances, R3/R4 should manage critically ill patients on their own. In this regard, it is expected that back up help will be physically present in the resuscitation room.**
4. **Acting senior resident (R5) should attend to all new consults. Acting senior resident (R5) should be available to assist Junior (R1/R2) as well as senior resident (R3/R4) for any patient related issue. Remember, you are part of a team process. You are expected to teach at all times and be a role model for fellow junior House Staff.**
5. **When the team on-call, the attending physician on the service should be available for consultation by phone at any time. Remember, the attending physician has chosen to become a clinical tutor. It goes without saying that the attending physician does not reprimand, critique or ridicule house staff for off hours call for assist with patient-related issues. It is expected that the service work as a team collectively with one goal in mind, namely optimal patient care.**

Roles and Responsibilities:

Medical Students:

1. **Each patient must be seen and examined prior to work rounds.**
2. **Carefully review cross cover issues from the previous evening**
3. **Know the results of all the recent lab tests/radiographic studies/telemetry**
4. **Review any consulting service's recommendations from the previous day**
5. **Review all medication cardex daily to ensure you have an up-to-date list including start dates for all antibiotics**
6. **The junior resident must review your patient with you prior to work rounds. This includes seeing the patient with you at the bedside.**
7. **Review care plan from previous day to see if accomplished and if not, why?**
8. **Formulate your own management plan for each patient to discuss with the junior and senior residents**
9. **Have your questions ready for the junior and senior residents**
10. **Your admission history and physical is not to an official document in the medical chart. Please make sure you clearly label H&P as medical student H&P. The junior or senior residents or registrar are expected to place their own H&P in the chart.**
11. **Your daily progress notes are allowed to be part of the official medical record. You are expected to complete them early in the day. The junior and/or senior residents must review your note with you, edit them accordingly and add an addendum to the end of the note. Your note should not be placed into the chart until this review process occurs.**
12. **Inform the junior or senior residents and attendings of your other educational responsibilities during the rotation so they can optimize your educational experience**

Junior Residents (R1 and R2)

1. **The junior resident is expected to see patients daily.**
2. **Performs complete history and physical examinations on all new patients for whom he/she has primary responsibility;**
3. **Examines all data related to the management of his/her patients;**
4. **Synthesizes all available information to generate differential diagnoses and subsequent diagnostic and therapeutic plans;**
5. **Communicates the synthesis of the above information in both an oral and written format to his/her supervising faculty member;**
6. **PROMPTLY follows-up on all tests and procedures ordered for patients under his/her care. For example, if the junior resident orders an EKG or a chest x-ray or a lab, it is the junior resident responsibility to document in the chart the SAME DAY the result of the lab or imaging studies ordered.**
7. **Each patient must be seen and examined prior to work rounds. The only exception is if you are managing an unstable patient. Then, it is the responsibility of the senior resident and/or registrar on the team. The junior resident communicates to his seniors any concerns he/she may have concerning any unstable patient.**
8. **Carefully review cross cover issues from the previous evening**
9. **Know the results of all the recent lab tests/radiographic studies/telemetry. A large portion of your evaluation hinges on how well you know your patients and how promptly you follow up on them.**
10. **Review any consulting service's recommendations from the previous day**
11. **Review all medication cardex DAILY to ensure you have an up-to-date list including start dates for all antibiotics. DOCUMENT ALL MEDICATIONS IN YOUR PROGRESS NOTE DAILY – No Exception. Again, good documentation constitutes a major portion of your evaluation. More importantly, good documentation is just plain good medicine.**
12. **Medical student patients must be seen with them prior to work rounds. Their findings do not substitute for your exam**
13. **Prepare the medical students for the resident and attending**
14. **Review care plan from previous day to see if accomplished and if not, why?**
15. **Formulate your own management plan for each patient to discuss with the resident**
16. **Have your questions ready for the resident**
17. **Review the medical students' daily progress notes with them editing them accordingly and add an appropriate addendum prior to the note being placed in the chart.**
18. **Responsible for timely completing of discharge summary, within 24 hours following discharge (no exception to the rule). (SEE BELOW FOR SAMPLE)**
19. **It is the responsibility of the junior resident to write on off service note on their last day of rotation. Failure to do so will result in failure of rotation. (SEE BELOW FOR SAMPLE). OFF SERVICE NOTE - This note is to let the oncoming physicians and residents know what is going on with the patient when you are leaving the service. Especially important if the patient has had a long hospital stay, ICU, etc. OFF SERVICE NOTE IS REQUIRED EVEN FOR so called "SOCIAL STAY PATIENT".**
20. **Every junior resident will be expected on a daily basis to SIGN OUT ALL OF THEIR ACTIVE PATIENTS TO ON CALL SERVICE IN WRITING. Again, no exception to the rule. (See Below for SAMPLE).**

Following the presentation on rounds, the senior resident and/or attending supervisor will then interviews and examine the patient with the intern, followed by an extensive discussion of the differential diagnosis and relevant clinical topics.

Senior Resident (R3/R4/R5)

1. **He/she is the leader of work rounds and provides the framework for the team**
2. **Sets the meeting time – key point is to allow enough time to discuss adequately all patients and to physically see and examine all the sick patients with the juniors and students before rounds. Card flipping OR Checking labs on computer does NOT constitute work rounds.**
3. **Must make it an expectation that all patients be seen and students & interns be prompt to rounds**
4. **Review all radiology studies/labs from the previous day**
5. **Make sure all the little details/questions are answered (i.e. how to replace K+).**
6. **With the intern, develop the care plan for the day (any difference of opinion is settled here before attending rounds) for each patient**
7. **Formulate any questions for the attending**
8. **Prepare the intern and students for attending rounds**
9. **Review any sub intern's daily progress note and add an appropriate addendum to it prior to it being placed in the chart**
10. **Take the opportunity to provide teaching to interns and students without the attending**
11. **Identify learning issues for the team that the attending can then focus on in teaching rounds**
12. **Provide continued supervision of interns and students throughout the day in all aspects of patient care including procedures and ongoing management**
13. **Regularly meet with discharge planning and social services to facilitate the discharge needs of each patient**
14. **Along with the most senior junior on the team, senior residents arrange the schedule so that the students, juniors, and yourself for weekend coverage**
15. **Review discharge summary prepared by the junior resident, and ensure discharge summary is complete (Discharge medications reconciled; avoid polypharmacy in geriatric patients; avoid unnecessary medications such proton pump inhibitors that was started in hospital; ensure appropriate follow up is established; ensure appropriate vaccinations are given (when indicated); ensure family/patient understands discharge instructions).**
16. **Review Sign Out Note and Transfer Note prepared by junior resident and ensure completion.**
17. **Help out junior residents complete their work in timely fashion, and fill in role of junior resident in cases of illness.**
18. **Ensure closing rounds are done on a daily basis; lead closing rounds.**
19. **Organize and run didactic weekly lectures on the service.**

Clinical Tutor/Supervising Attending:

1. **Main responsibility of supervising attending/clinical tutor on the service is to ensure wellbeing of the patients and standard of care is followed.**
2. **Secondarily, it is imperative to underscore and emphasize that MTU is a TEACHING SERVICE. Junior and Senior House Staff are not to be abused or assigned work beyond their capacity or experience. House staff are physicians in training, and should be treated as such.**

3. **It is the responsibility of clinical tutor/supervising resident to mentor and develop junior physician to become compassion and competent physician. That is not to say, the junior physician are not accountable for their daily responsibilities and obligations to their patients.**
4. **As mentioned above, MTU is a teaching service. The supervising attending/clinical tutor responsibility is to foster a teaching environment in a non-threatening manner, and allow the senior resident opportunity to lead the team and promote their independence.**
5. **It is the responsibility of the supervising attending/clinical tutor to evaluate the house staff twice during their two months rotation. The first evaluation can be done in an informal session half way through the rotation; the second and final evaluation is done toward the end of the rotation.**
6. **Should any problem arise, it is expected that the supervising attending/clinical tutor address any issues or conflicts within the team. If the conflict cannot be resolved, the issue can be taken up with the site coordinator.**
7. **Finally, the attending supervision/clinical tutor is the physician of record. It is important to emphasize that any paperwork deficiency or failure to follow through treatment ultimately lies with the supervising attending and not with the house staff.**

Site Coordinator:

1. **Ensure all teams are adhering to the MTU rules.**
2. **Ensure teaching rounds are being followed per this manual, with weekly didactic lectures.**
3. **Ensure that attendance to morning report and academic conference are maintained by house staff.**
4. **Ensure that house staff rule are not violated, namely each junior residents are capped at no more than 10 active patients (when two junior residents are on the service) and/or no more than 15 active patients (when three junior residents are on the service).**
5. **Ensure that senior resident (R3 AND R4) admits no more than 10 patients during on call. Essentially, once the senior resident is capped (reached limit of 10 patients), it is the responsibility of the registrar on the team to admit any remaining patients.**
6. **Ensure senior resident (R5) is treated as an equivalent to a senior registrar, namely covering all consults and assisting junior residents in admission and management of critically ill patients in the casualty.**

Typical Daily schedule (excluding long call and post call day)

7:00 AM: Pre-Round on patients (Optional but highly recommended)
7:30 AM: Attend AM report (see below)
8:00 AM -9:30 AM: Complete pre-round
9:30 AM – Noon: ROUNDS ROUNDS ROUNDS
12:00 PM: Prayer – 30 minutes break (catch up)
12:30: Teaching/Didactics/Follow up on patients (Closing rounds on Tuesdays)
1:00 PM – 1:30 PM: Closing Rounds (Academic Conference on Tuesdays)
1:30 PM – 2:00 PM: Follow up on sick patients; sign out sick patients.

Principal Teaching Methods

a. Direct Supervised Patient Care:

Interns and residents evaluate patients independently and develop their initial impressions and evaluation and treatment plans.

The patients are then presented to the attending during rounds and the treatment plan is adjusted as needed. All residents are closely supervised by attending physicians. The attending will provide daily supervision of patient care.

Daily attending rounds are scheduled to occur from 9:30 AM to 12 noon on weekdays. The attending will provide teaching at the time of new patient presentations as well as during daily rounds. Additional teaching outside the context of management rounds is to occur by the attending and this is to include bedside physical exam skills. Total teaching time is to be at least 2.5 hours daily (weekdays).

b. Didactic or Seminar Education:

Residents are provided educational opportunities during the rotation in a variety of formats including:

1) **Morning Report which occurs Monday through Thursday 7:30-8:00 AM (It is expected that the senior resident and junior residents maintain, at least, 70% attendance during their rotation on MTU)**
2) **Tuesday Academic conferences 1:00-1:30 PM (70% attendance is required)**
3) **Wednesday Didactic Lectures 12:30-1:00 PM.**
4) **It is expected that each group presents an interesting case in morning report at least once during their two months rotation on the MTU.**

Educational Content

Mix of Diseases: By the end of the inpatient medicine rotations, the resident will have the skills and knowledge to care for patients with a vast array of disease processes including but not limited to:

1) **Syncope**
2) **Pneumonia- community acquired and healthcare associated**
3) **Gastrointestinal bleeding (upper and lower)**
4) **Asthma/COPD**
5) **Congestive heart failure**
6) **Diabetes Mellitus and its complications (including DKA, Hyperosmolar Hyperglycemia)**
7) **Acute kidney Injury/Chronic Kidney Disease**
8) **Dementia/Delirium/Altered level of consciousness**
9) **Liver disease (ascites, encephalopathy, variceal bleeding)**
10) **Venous Thromboembolic disease**
11) **Hypertension**
12) **Diarrhea**
13) **Shortness of Breath/Acute and Chronic Respiratory Failure**
14) **Chest Pain**
15) **Abdominal pain**
16) **Pancreatitis**
17) **Cerebrovascular Disease**
18) **Pyelonephritis/Urinary Tract Infections/Cystitis**

19) Meningitis
20) Disorders of sodium
21) Disorders of calcium
22) Disorder of potassium
23) Acid-base disturbances
24) Acute and chronic pain management
25) Anemia

b. Venue: All public teaching hospitals in Kuwait.

c. Patient Characteristics and types of encounters: The patient population hospitalized at Public Hospitals on general medicine wards in Kuwait is diverse, ranging in age from 18 to 90, with multiple ethnic and socioeconomic groups represented. The spectrum of these encounters will be from primary presentation of new disease processes to the tertiary care for the patient who is referred from private hospital or polyclinic. The care for these patients will occur on either general medicine floors or telemetry floors. Any patient requiring ICU level care will be transferred to the ICU teams who will assume care of the patient. Once patient stabilized and can be transitioned out of the ICU, the care for this patient can be reassumed by the general medicine ward service. All potential patients from the emergency room, clinics, and transfers from outside facilities are screened by senior resident and/or registrar to ensure that they are appropriate for admission.

Educational Goals:

a. Develop the basic clinical skills of caring for hospitalized patient:

1. **Understand the process of admission from the outpatient and emergency settings, in addition to transfers from outside hospitals.**
2. **Continue to expand on history taking skills and physical exam skills**
3. **Learn appropriate use of laboratory and other diagnostic tests in evaluate of patients and their disease processes**
4. **Become familiar with the social, economic, cultural and ethical issues unique to inpatient medicine Understand the appropriate disposition of patients upon discharge from the acute care setting**
5. **Develop the interpersonal and communication skills to be able to work effectively within the health care system and with all members of the health care team**
6. **Understand appropriate use of subspecialty consultation, social work, discharge planning, therapists, nutritionists, etc.**
7. **Acquire and further develop skills to become an effective educator/teacher**
8. **Acquire and develop skills that allow resident to become an effective leader/supervisor of a health care team**
9. **Develop critical thinking skills and ability to practice evidence based medicine**

b. Rotation Specific Competencies:

1. Patient Care:

Goal: Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health

Junior Resident:

1. **Provide verbal presentations that are thorough, yet succinct and pertinent, and that reflect understanding of the patients' condition and/or support a differential diagnosis.**
2. **Maintain comprehensive, timely and legible medical records in the chart.**
3. **Provide on call team verbal sign-out of patients that is efficient, pertinent, and explicit.**
4. **Prioritize patient's problems**
5. **Toward at end of rotation, he/she will present a patient history without notes.**
6. **Teach medical students the fundamentals of history taking.**
7. **Be able to confirm diagnosis and prioritize differential diagnosis.**
8. **Resident demonstrates the delivery of bad news**
9. **Knows indications for procedure**
10. **Ability to make basic interpretation of imaging studies, including x-rays of chest and abdomen, CT scans of brain, chest and abdomen.**
11. **Be proactive about arrange discharge.**
12. **Develop a therapeutic relationship with patients and their families, regardless of their background.**
13. **Be able to explain a patient's condition and plan of care to the patient and family in terms that are understandable and appropriate.**
14. **Be able to discuss the risks and benefits of procedures or interventions with patients and families, and obtain informed consent.**

Senior Resident:

1. **Integrate all information from history, physical exam and diagnostic studies to develop a diagnostic and therapeutic plan at the level of a general internist without need for supervision.**
2. **Resident teaches junior residents/medical students the fundamentals of inpatient hospital medicine practice**
3. **Effectively communicate the management plan to patients/families.**
4. **Be able to apply current medical evidence (e.g. guidelines, original literature) to refine the patient management plan.**
5. **Initiate and coordinate the involvement of healthcare providers from other disciplines and services to provide comprehensive, patient-centered care.**

2. Medical Knowledge:

Goal: Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

Junior Resident:

1. **Understand basic pathophysiology, clinical manifestations, diagnosis and management of medical illnesses encountered in hospitalized adult patients, including but not limited to anemia, leukocytosis, fever, thrombocytopenia, dyspnea, chest pain, acute coronary syndrome, edema, electrolyte imbalances, acute and chronic kidney disease, abdominal pain,**

delirium, encephalopathy, jaundice, deep venous thrombosis, pulmonary embolism, uncontrolled hypertension, uncontrolled diabetes.

2. **Learn indications for and basic interpretation of standard laboratory tests, including blood counts, coagulation studies, blood chemistry test, urinalysis, body fluid analyses, and microbiologic tests.**

Senior Resident:

1. **Resident demonstrates independence in decision making**
2. **Resident is proficient in the common disorders seen on medicine inpatient and is able to teach students and junior residents effectively**
3. **Resident demonstrates broad differential diagnosis skills**
4. **Resident demonstrates appropriate diagnostic and therapeutic planning.**

3. **Practice-Based Learning and Improvement:**

Goal: Residents must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.

Junior Resident:

1. **Resident prioritizes treatment decisions based on patient's severity of illness.**
2. **Asks for help when needed self-motivated to acquire knowledge**
3. **Be able to supervise and teach senior medical students.**
4. **Seek and accept feedback from attendings and supervising residents, and utilize that feedback to improve their clinical performance.**
5. **Set short-term learning goals. Evaluate and critiques their own performance relative to those goals at the beginning and end of the rotation.**

Senior Resident:

1. **Resident will use major textbooks, review articles, and current literature to facilitate patient care**
2. **Commitment to professional scholarship, including systematic and critical perusal of relevant print and electronic literature, with emphasis on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine**
3. **Develop and implement strategies for filling gaps in knowledge and skills**

6. **Interpersonal and Communication Skills:**

Goal: Residents must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients families, and professional associates.

Junior Resident:

1. **Communicate and express empathy with patients and their families.**
2. **Communicate effectively with physician colleagues at all levels**
3. **Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of hospitalized patients.**
4. **Present information on patients concisely and clearly both verbally and in writing.**

Senior Resident:

1. **Communicate and express empathy with patients and their families**
2. **Effectively communicate and coordinate the plan of care with nursing staff and members of ancillary healthcare services.**
3. **Engage patients and their families in shared decision-making, especially in situations whether there is clinical uncertainty and/or ambiguity.**
4. **Be able to resolve conflicts with patients/families, staff, or within the team, with some involvement of the attending physician.**
5. **Effectively communicate with physicians as a consultant, and be able to provide succinct, explicit recommendations both verbally and in writing.**

5. **Systems Based Practice:**

Goal: Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Junior Resident:

1. **Effective collaboration with other members of the health care team, including residents at all levels, medical students, nurses, clinical pharmacist, physical therapists, nutrition specialists, speech pathologists, respiratory therapists, social workers, clinical pharmacists and providers of home health services.**
2. **Knowing when to transfer a patient to the care of an internist or to another subspecialty service such as CCU, neurology, nephrology or GI service or intensive care unit.**

Senior Resident:

1. **Consistently anticipate patients' discharge needs and begin discharge planning early in the hospitalization, with minimal or no prompting by the attending physician.**
2. **Learn to anticipate patients' discharge needs (e.g. transportation and medication assistance; need for placement, home health care etc.), and begin discharge planning early in their hospitalization.**
3. **Effectively coordinate the involvement of healthcare providers from other disciplines and physicians from other specialties to provide comprehensive, patient centered care.**

6. **Professionalism:**

Goal: Residents must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population

Junior & Senior Residents:

1. **Treat all patients, regardless of background, with respect, compassion and empathy. .**
2. **Treat everyone else – nursing staff, ancillary healthcare providers, program personnel, students, residents from our own and other programs, attending physicians in all specialties, others – with respect and courtesy, and in a way that reflects positively on them as individuals and the medical profession as a whole.**
3. **Accept professional responsibility as the primary care physician for patients under his/her care.**

Reading Lists/Educational Materials:
We recommend house staff subscribe to Harrison's Principle of Internal Medicine, MKSAP-17 series, and Sanford Antibiotic guide/or John Hopkins Antibiotic guide. Additionally, each MTU should keep a file containing pertinent articles discussed during the Weekly didactic curriculum, and free computer access to uptodate.

Feedback and Evaluation:

Although sometimes difficult, feedback is essential to the learning process. Residents are given continuous feedback on a daily basis by faculty.

There will be two scheduled formal feedback sessions with each resident: an informal feedback session at the midpoint of the rotation, and final feedback session at the end of the rotation. Midpoint feedback session will focus on areas of improvements and reinforce areas of strengths. Final feedback at the end of the rotation will focus on an action plan, namely areas the resident needs to refine and strengthen. In addition to the consultant feedback at the end of the rotation, the resident will receive a "360 degree feedback" in terms of strengths and weaknesses from one anonymous nursing staff, one peer and one other faculty member.

Finally, we do expect the resident to provide a written anonymous feedback on his/her experience of rotation.

In the future, we hope to have formal questionnaire to standardize the evaluation process that can be transmitted electronically.

Other knots and bolts issues:

I. Presentation Format:

For new patient, medical student or junior resident is expected to follow the following format:

1. **History of Present Problem**
2. **Past Medical/Surgical History**
3. **Allergy**
4. **Home Medications**
5. **Pertinent social/family History**
6. **Physical exam on admission**
7. **Labs/Imaging**
8. **Assessment/Plan**

For established patients on daily rounds, the organization of presentation is expected to follow SOAP format:

S (Subjective):

- **Discuss any complaints or concerns by the patient and/or her family.**
- **Highlight issues being addressed during this hospitalization and progress toward disposition in the past 24 hours.**

- **Discuss/Report any issues overnight**
- **Discuss any problems with bowels, ambulation, urinary habits, falls, delirium, IV access.**

O (Objective):

- **Report vitals (current temp; highest temp; last fever; Blood pressure range; Heart rate range; Resp rate; Pulse ox on oxygen – how much oxygen; mode of oxygenation and settings).**
- **Report Ins and Outs if indicated**
- **Report blood glucose measurements over past 24 hours**
- **Report pertinent positive on exam**
- **Make sure you inspect for decubitus ulcer and skin breakdown**
- **Make sure you inspect IV site**
- **Make sure you inspect inside mouth and dentition health**
- **Make sure you look at the skin, especially back and feet**

List current medications and doses; Make sure to account for number of days patient had been on Antibiotics.

Report lab results; pending cultures; and Imaging studies.

A (Assessment)/ P (Plan):

1. **Report in a list format either diagnosis or problems being addressed in this hospitalization. For each problem, when applicable, you must provide the following:**

1) A reasonable differential diagnosis
2) Etiology
3) Current treatment (i.e medications)
4) Plan for remainder of hospitalization.

2. **For all patients, include the following two issues in your assessment/plan.**

1) F/E/N (fluids/Electrolytes/Nutrition)
2) DVT prophylaxis* (see below)

Finally, as mentioned above, your progress note should be written before teaching rounds begin.

II. Quality Assurance:

We, all together (Consultants, supervising attendings, senior residents, junior residents and medical students) will strive to maintain optimal standard of care. As general guidelines for management of hospitalized patient, listed below are sever general areas of importance that is universal to all hospitalized patients:

1. **PPI:**

   Indications for PPI include:
   1) **Active or recent upper GI bleed**
   2) **Hx of non-healing PUD**
   3) **On anticoagulation and anti-platelet therapy for which PPI is needed prophylactically.**
   4) **On medications, such as corticosteroid, that places patient at high risk for erosive gastritis**
   5) **Patient is being treated for H. pylori infection**
   6) **Patient is septic and intubated, requiring stress ulcer prophylaxis**
   7) **Patient has symptomatic esophagitis, gastritis or duodenitis.**

Beyond the above indications, any patient on PPI will need to document in spread sheet (will be given to each team at beginning of each week) as unnecessary use of PPI.

2. **Foley:**

   Indications for indwelling foley:
   1) **Perioperative use for selected surgeries**
   2) **Measurement of urinary output in critically ill patient**
   3) **Management of acute urinary or bladder outlet obstruction**
   4) **End of life patient for comfort care, if indicated.**

Beyond the above indications, any patient with foley will need to document in spread sheet (will be given to each team at beginning of each week) as unnecessary placement of foley.

3. **Development of new wounds/pressure ulcer**
   Any patient who develops pressure ulcer during hospitalization, a documentation of date and stage of ulcer should be noted.

4. **Progression of pressure ulcers**
   Any patient who has worsening or progression of pressure ulcers during their hospital stay, documentation of stage at time of admission and discharge should be noted.

5. **Hospital Acquired Infections (HAI):**

Any infection (defined as positive blood/sputum/urine cultures, high procalcitonin, new infiltrate on cxr with supporting symptoms) that develops AFTER 72 HOURS following admission should be documented, and nature of infection should be documented.

6. **DVT prophylaxis:**
   Any patient with moderate or high risk for DVT who is not on pharmacological DVT prophylaxis should be documented as a fall out.

Risk factors:

1. **Age. ≥ 40 years or greater than 18 years undergoing surgery for 30 minutes or longer.**
2. **Surgery: Current or in past 30 days**
3. **Active Smokers**
4. **Obesity**
5. **Malignancy: past or present**
6. **Heart failure: Acute or chronic**
7. **COPD/Resp Failure: Acute or chronic**
8. **Hx of thromboemboli**
9. **Recent CVA or ongoing paralysis**
10. **Sepsis or other source of infections**
11. **Indwelling venous catheter**
12. **Trauma/fall**
13. **Estrogen therapy**
14. **Pregnancy/Postpartum <30 days**
15. **Prolonged immobility >72 hours**
16. **Nephrotic Syndrome**
17. **Inflammatory Bowel disease**
18. **Collagen Vascular disease**
19. **Sickle cell disease**
20. **Myeloproliferative disorders**
21. **Hemophilic state**
22. **Varicose veins**

Low Risk <2:
Early immobilization
No additional treatment with exception of patients with CVA, paralysis, malignancy, recent surgery, trauma or prior VTE.

Moderate to High Risk:
Place on pharmacological DVT prophylaxis
Ambulate early, when appropriate

7. **Vaccination recommendations on discharge:**
   Need to document in discharge summary status of:
   1. **Flu-vaccine**
   2. **Prevnar 13**
   3. **Pneumococcal polysaccharide vaccine (PPSV23)**

Failure to document this on discharge summary will count as a fall out.

III. Social Stay Patients Policy:

There is no "social stay patient". If patient is either discharge or not. If patient refuses discharge, we are still obligated for the patient as long as the hospital. As such, the so-called "social stay patient" should be have a written discharge from the service. Should the patient and/or family decide to stay

in hospital for nursing care, then we are obligated to round on these patients once a week to review medications and obtain appropriate basic labs, as indicated.

IV. Discharge Summary Policy:

1) **Every admitted patient should have a discharge summary, even in the unfortunate event of death or demise.**
2) **Discharge summary should be done within 24 hours after the patient is discharged.**
3) **Discharge summary should contain the following information (SEE SAMPLE BELOW)**

- **Date of admission/Date of discharge**
- **Reason for Hospitalization**
- **Procedures/Consults**
- **Imaging Studies**
- **Hospital Course (easy to list by problem in lieu of days or weeks)**
- **Discharge Medications**
- **Follow up Instructions (Diet; Activity; Follow up appointments)**

Sample Discharge Summary

- **Patient Name:**
- **Medical Record Number/CID Number:**
- **Admission Date:**
- **Discharge Date:**
- **Attending Physician:**
- **Dictated by:**

- **Primary Care Physician:**
- **Referring Physician:**
- **Consulting Physician(s):**
- **Condition on Discharge:**

- **Final Diagnosis: (list primary diagnosis FIRST)**
- **Procedures: (list dates, complications)**
- **History of Present Illness (can refer to dictated/written HPI)**
- **Laboratory/Data (be BRIEF, just the most PERTINENT results that need to be followed)**
- **Hospital Course (by PROBLEM LIST…. NOT BY DATE ---)**

- **Discharge Medications (MOST IMPORTANT – LIST MEDS THAT ARE DIFFERENT FROM ADMISSION MEDICATIONS)**

- **Discharge Instructions (diet, activity, discharged to home/nursing facility, vaccinations, etc)**
- **Follow up Appointments**

- **Dictated by…**

OFF SERVICE NOTE SAMPLE

- **ADMIT DATE:**
- **ADMITTING DIAGNOSIS: list in order of importance.**
- **HOSPITAL COURSE: Tells the story of the patient from when they were admitted until now, changes over time, lab studies, procedures, results.**
- **PHYSICAL EXAM: brief, targeted.**
- **PROBLEM LIST: list in order of importance.**
- **ASSESSMENT: based on above data.**
- **PLAN: medication changes, lab tests, procedures, consults, etc.**

Sign Out Note Sample

A commonly used handoff mnemonic

- **SIGNOUT**
    - **Sick ? (highlight sick or unstable patients)**
    - **Identifying data (name, age, gender, diagnosis)**
    - **General hospital course**
    - **New events of the day**
    - **Overall health status/clinical condition**
    - **Upcoming possibilities with plan, rationale**
    - **Tasks to complete overnight with plan, rationale**

GOALS AND OBJECTIVES FOR AMBULATORY MEDICINE ROTATION

Introduction:
The ambulatory medicine rotation involves continuity clinic occurring one-half day per week. Residents will be assigned to one half-day outpatient clinic weekly during PG Year 4 and 5 and see an average of 8-10 patients per clinic. Ambulatory medicine rotation will occur while the upper level resident is rotating through MTU (inpatient medicine) at their home institution. In case where the resident happens to be rotating at another facility, the resident will be excused from rounding with his or her inpatient team, so they can attend their clinic.

Rotation Structure and Schedule:
In the outpatient general medicine clinic, the resident is expected to see an average 8-10 patients. They will follow the same panel of patients with the same Faculty member for the duration of their training. The residents are expected to attend the clinic regularly. The goal is that the residents have the opportunity to see the same patients over time supervised by the same faculty member. Each clinic visit they will see both new referrals and follow up consultations. They are expected to write progress notes for the patients they see and be involved in arranging follow up test and handling patients' questions, concerns, and pharmacy issues.

Sample Daily Schedule on Ambulatory Medicine Clinic:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory general medicine clinic along with supervising attending internist.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
The Internal Medicine resident is expected to take general medicine call as assigned to his or her MTU team.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

1. **Medical Expert:**

- **R4-R5 residents:**

By the end of the rotation, the resident will be able to:
1) **Perform an accurate history and physical exam**
2) **Develop a prioritized differential diagnosis**
3) **Develop an evidence-based diagnostic and therapeutic plan for common medical problems seen in GIM clinic (perform complete Healthy Adult Preventive visit; recommend appropriate**

Health Maintenance Testing for Adults; Diagnose and manage complex Diabetes patients; Diagnose and Treat abnormal cholesterol levels; Diagnose and manage Hypertension; Recognize and treat Anxiety and Depression; Diagnose and manage thyroid diseases; Evaluate and recognize simple skin disorders; Diagnose and treat Upper Respiratory common respiratory disorders including obstructive and restrictive lung disease; Diagnose and manage common gastrointestinal ailments, including gastroesophageal reflux disorder, dyspepsia, lactose intolerance, celiac disease, chronic constipation).

4) **Minimize unnecessary care including tests**
5) **Evaluate a complex medical patient in a timely manner**

2. **<u>Communicator</u>:**

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Communicate effectively with patients and families across a broad range of socioeconomic and ethnic backgrounds.**
2) **Provide accurate, complete and timely documentation**
3) **Communicate effectively with physician colleagues at all levels**

3. **<u>Collaborator</u>:**

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Collaborate with other members of the health care team to assure comprehensive patient care.**
2) **Effective collaboration with other members of the health care team, including nurses, clinical pharmacists, occupational therapists, physical therapists, nutrition specialists, patient educators, speech pathologists, respiratory therapists, social workers, and providers of home health services.**

4. **<u>Leader</u>:**

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Willingness and ability to teach medical students**
2) **Acceptance of professional responsibility as the primary care physician for patients under his/her care**

5. **<u>Health Advocate</u>:**

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Appreciation of the social context of illness.**
2) **Understand and utilize the multidisciplinary resources necessary to care optimally for clinic patients.**
3) **Effective utilization of medical consultants, including knowing when and how to request consultation, and how best to utilize the advice provided.**
4) **Consideration of the cost-effectiveness of diagnostic and treatment strategies**

6. **Scholar:**

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Identify and acknowledge gaps in personal knowledge and skills in the care of ambulatory patients.**
2) **Develop strategies for filling knowledge gaps that will benefit patients in a busy practice setting.**
3) **Engage in educational specific activities during the rotation.**

7. **Professional:**

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Demonstrate empathy, compassion, and a commitment to relieve pain and suffering.**
2) **Interact professionally towards patients, families, colleagues, and all members of the health care team.**
3) **Acceptance of professional responsibility as the primary care physician for patients under his/her care.**
4) **Demonstrate proper professional attitudes with respect to attendance and punctuality.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR CARDIOLOGY ROTATION

Introduction:

This two-month rotation consists of rotations involving cardiac care unit, inpatient cardiology consult service, and cardiology outpatient clinic. Residents are scheduled to spend equal amount of time rotating cardiac care unit and inpatient cardiology consult service. The resident is expected to attend weekly cardiology grand rounds and is expected to present at these rounds on at least one occasion.

For cardiology rotation, residents will be assigned to Al-Adan Hospital, Al-Farwaniya hospital , Mubarak Hospital, Amiri Hospital

Rotation Structure and Schedule:

On the cardiac care unit, residents are expected to round on a minimum of 2-4 patients per day. At the discretion of the attending supervision physician, the resident is expected to admit patients presenting with acute coronary syndromes, chronic stable angina, congestive heart failure, arrhythmias and conduction disorders and valvular heart disease. The resident is expected to pre-round on their patients' daily, write progress notes in the chart and discuss daily progress of their patients on rounds with the rest of the cardiology team lead by the consultant cardiologist. It is expected that the resident complete their progress notes prior to rounds and, in certain instances, the residents may ask to complete a discharge summary when their patients are discharged from the service.

On the consult service, it is expected that resident sees a minimum of 2-4 new cases per day, and follow up on minimum of 3-5 cases/day. The resident will initially perform all new consults. The patient is subsequently seen jointly by the cardiology fellow/medical student and the attending. Consultation note prepared by the resident will not be placed in the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of laboratory trends. In this regard, residents are expected to learn to formulate appropriate management plans for patients with cardiovascular diseases, including use of medication, laboratory testing, and application of noninvasive and invasive cardiac testing results. The resident will also be called upon to provide accurate pre-operative cardiac risk assessment for patients undergoing non-cardiac surgeries.

In the outpatient cardiology clinic, the resident is expected to work with preceptor on a one to one basis critically evaluate evidence basis for cardiovascular-related diagnosis and treatment such as the use of medications for primary prevention for heart disease, medical and surgical management of acute arterial occlusive disease, and interpret and apply treatment guidelines for a variety of cardiovascular-related conditions, such as national cholesterol treatment guidelines and the treatment of hypertension.

Sample Daily Schedule on Cardiology Inpatient Consult Service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 12:00 am: Resident follows up on old patients and work up new consults.
12:30 pm to 2:00 pm: Team gather and round on all new and old patients.

Sample Daily Schedule on Cardiac Care Unit:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Pre-Rounds on patients
9:00 am – Noon: Teaching rounds with rest of the team and consultant cardiologist.
12:30 pm -2:00 pm: Teaching/Didactics/Follow up on patients.

Sample Daily Schedule on Outpatient Cardiology Clinic:
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory cardiology clinic along with supervising attending cardiologist.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
Residents are assigned to covering cardiology service call when rotating on cardiology service. Call is every 5th night. Residents will cross-cover CCU, ER and consult service. Residents will be supervised at all times when on call by senior cardiologist.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7)Professional.

3. **Medical Expert:**

   - **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

1. **Accurately demonstrate taking an appropriate cardiac history to include assessment of significance and severity of symptoms, medication and other treatment history, and likelihood of alternate diagnoses.**
2. **Formulate appropriate management plans for patients with cardiovascular diseases, including use of medication, laboratory testing, and application of noninvasive and invasive cardiac testing results.**
3. **Accurately read and interpret ECGs, identifying normal and abnormal rhythms.**

4. **Describe the presentation and treatment of stable and unstable angina and acute coronary syndrome/acute MI.**
5. **Discuss the pathophysiology, evaluation and treatment of common dysrhythmias, especially atrial fibrillation.**
6. **Describe diagnosis, management, and significance of hypertension and dyslipidemia**
7. **Identify physical findings of common valvular disorders and correlate them with echocardiographic findings.**
8. **Describe pathophysiology, diagnosis, and treatment of congestive heart failure.**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

1) **Meet competency stated for R1-R2 residents.**
2) **The resident will demonstrate the ability to describe the etiology, epidemiology, pathophysiology, clinical features, relevant laboratory knowledge, and the therapeutic options for major cardiovascular disease, including:**

    I. **Chest pain**
    II. **Dyspnea**
    III. **Syncope**
    IV. **Palpitations**
    V. **Cardiac murmurs**
    VI. **Abnormal cardiac enzymes**
    VII. **Congestive heart failure**
    VIII. **Coronary heart disease**
    IX. **Acute coronary syndromes and their complications**
    X. **Valvular heart disease**
    XI. **Cardiomyopathies**
    XII. **Pericarditis and pericardial effusion and tamponade**
    XIII. **Pulmonary hypertension**
    XIV. **cardiogenic shock**
    XV. **Infective Endocarditis**

3) **Manage acute cardiac emergencies in the initial phase of treatment in the emergency room and on the cardiac care unit.**
4) **Assess and manage patients with hypertensive crisis, bacterial endocarditis, heart murmur, and known valve disease, (esp. mitral and aortic).**
5) **Give an in-depth electrocardiogram interpretation**
6) **When appropriate, demonstrate proficiency in central line and arterial line insertion and cardioversions.**
7) **utilize the learning opportunities of Basic echocardiography; Exercise stress testing; and Exercise and chemical stress imaging.**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

1) **Demonstrate competence in managing patients in the coronary care unit with common cardiology conditions e.g. chest pain, acute myocardial infarction, congestive heart failure, cardiogenic shock, unstable angina and arrhythmias, pericardial effusion and tamponade.**
2) **Perform a preoperative cardiac risk assessment for non-cardiac surgery**

2. Communicator:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Establish a therapeutic relationship with patients and their families, emphasizing active listening, understanding, trust, empathy, and confidentiality.**
2) **Communicate in an effective manner, verbally and in written form, with other members of the health care team.**
3) **Obtain a full cardiac history using effective communication skills with cardiac patients and their families/care takers**
4) **Provide appropriate patient education on cardiovascular diagnosis and treatment as part of a management plan based upon the literacy level of patients and their families/care takers.**
5) **Coordinate care with patient and other team members for chronic disease management of congestive heart failure, cardiac rehabilitation, and other care programs as appropriate.**
6) **Discuss appropriate information with the patient, his/her family, and other healthcare providers (hospitalists, intensivists, other physician requesting consultation, and primary care physicians) to facilitate the optimal management plan for the care of the patient.**

4. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Recognize that high quality cardiology care is best provided by a team approach, collaborating with cardiovascular surgeon, EP cardiologists, interventional cardiologists, pharmacists, dietitians, social workers and nurses.**
2) **Work effectively in an interdisciplinary team, demonstrating an understanding and respecting the roles of other health disciplines.**
3) **Appropriately utilize other healthcare organizations and allied healthcare professionals in the efficient management of ambulatory cardiac patients, particularly the implications for medication selection based upon insurance coverage (or lack of coverage) for the patient.**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

3) **Residents will demonstrate timeliness in completing assignments & performing consultations (which should typically be completed and reviewed on the day received), and progress notes.**

4) **Resident will demonstrate the ability to prioritize and perform necessary follow-up.**
5) **Resident will demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest.**
6) **Resident will demonstrate a commitment to ethical principles pertaining to confidentiality of patient information and informed consent.**
7) **Resident will demonstrate appreciation of the social context of illness.**
8) **Resident will demonstrate the consideration of the cost-effectiveness of diagnostic and treatment strategies.**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Understand and utilize the multidisciplinary resources necessary to care optimally for cardiac patients.**
2) **Use evidence-based, cost-conscious strategies in the care of the patients.**
3) **Understanding when to ask for help and advice from supervising physicians.**
4) **Learning by participation in teaching conferences, and other educational activities.**
5) **Effective collaboration with other members of the health care team in the service of the patient.**

6. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Ability to undertake a critical appraisal of the literature**
2) **Analyze practice experience and perform practice-based improvement activities using a systematic methodology.**
3) **Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.**
4) **Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness.**
5) **Use information technology to manage information, access on-line medical information; and support their own education.**
6) **Facilitate the learning of students and other health care professionals.**

7. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Interact professionally toward patients, families, colleagues, and all members of the health care team.**
2) **Acceptance of professional responsibility as the primary physician for patients under his/her care.**
3) **Increase self-awareness to identify methods to manage personal and professional sources of stress and burnout.**
4) **Demonstrate recognition of personal limitations of professional competence and demonstrate a willingness to call upon others with special expertise.**
5) **Appropriate attendance and punctuality at clinical rounds, and clinics.**
6) **Be aware of the ethical and legal aspects of patient care.**
7) **Strive for a balance between personal and professional roles and responsibilities.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent the majority of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR CRITICAL CARE ROTATION

Introduction:

This two-month rotation consists of rotations involving Medical Intensive Care Unit (MICU). Residents will be assigned to rotate in MICU of Al-Amiri Hospital, Mubarak Al-Kabeer Hospital, Al-Jahra Hospital, or Al-Adan Hospital.
Residents assigned to the MICU are exempt from Morning Report, noon conferences, and weekly academic conference.

Rotation Structure and Schedule:

On the MICU, residents are expected to round on 3-5 patients per day. The goal and objective of the rotation is for the resident to develop an in-depth experience in the diagnosis, investigation, and management of a wide variety of critically ill patients, including but not limited to patients presenting with acute hypoxia, acute respiratory distress syndrome, acid-base imbalances, liver and renal failure, acute stroke, intracranial hemorrhage, status epileptics, shock, and coma. The resident will understand the role, indications, contraindications, and complications of procedures performed on critically ill patients. The resident is expected to pre-round on their patients daily, write progress notes in the chart and discuss daily progress of their patients on rounds with the rest of the MICU team lead by the consultant intensivist. It is expected that the resident completes their progress notes prior to rounds. The resident is also expected to complete a transfer summary when their patients are discharged to other the services. Finally, at the discretion of the attending intensivist, upper level residents may be asked to admit directly patients from ED into MICU.

Sample Daily Schedule on MICU:

6:00 am to 9:00 am: Residents pre-round on old patients and evaluate new admissions overnight.
9:00 am to 1:00 pm: Working rounds with attending intensivist.
1:00 pm to 3:00 pm: Finish any remaining work, and follow up on lab tests/consults/imaging studies (The resident is expected to complete all of their assigned work before they are excused from their duty).

On-call Schedule:

Call is every 4th or 5th night. Residents will be supervised at all times when on call by senior level intensivist.

Objectives and Core Competency:

Residents are evaluated based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

5. **Medical Expert:**

   - **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

1) **Ability to take a complete medical history and perform a careful and accurate physical examination.**

2) **Ability to write concise, accurate and informative histories, physical examinations, and progress notes.**
3) **Identify various sources and types of shock**
4) **Ability to perform basic procedures: venipuncture, arterial puncture, lumbar puncture, abdominal paracentesis, thoracentesis, arthrocentesis, and nasogastric intubation.**
5) **Ability to perform endotracheal intubation under close supervision, using Glidescope video laryngoscope**
6) **Ability to use Ultrasound-guided for placement of central venous lines**
7) **Interpret chest x-rays for common lung disorders**
8) **Demonstrate accurate medication reconciliation**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

1) **Meet competency stated for R1-R2 residents.**
2) **Effectively evaluate and manage patients with critical medical illness, including those on mechanical ventilation and vasopressors.**
3) **Understand the physiologic and pathophysiologic principles of invasive hemodynamic monitoring including indications**
4) **Ability to perform basic ventilator management.**
5) **Ability to formulate comprehensive and accurate problem lists, differential diagnoses, and plans of management for a critically ill patient**
6) **Identify various sources and types of shock**
7) **Delivery appropriate goal directed therapy for severe sepsis**
8) **Ability to lead a team during cardiopulmonary resuscitation and advanced cardiac life support.**
9) **Identify the appropriate clinical question for consultative services**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

1) **Meet competency stated for R3-R4 residents**
2) **Implement the appropriate mode of ventilatory assistance for respiratory failure 2. Manage ventilatory changes**
3) **Use appropriate volume strategy for ARDS**
4) **Develop and demonstrate in-depth knowledge with the pathophysiology, diagnosis and management of sepsis and the syndrome of multiple organ failure.**
5) **Perform central lines, thoracentesis, lumbar puncture, endotracheal intubation, and arterial lines with minimal supervision.**

6. **Communicator:**

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Communicate effectively with patients and families in a stressful critical care environment, including discussion of end-of-life issues and limits of care.**

2) **Communicate effectively with physician colleagues and members of other health care professions to assure timely, comprehensive patient care.**

7. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a different health care professional, setting, or stage of care.**
2) **Effective professional collaboration with other residents, fellows and faculty consultants from other disciplines such as Radiology, Cardiology, Nephrology, Infectious Diseases and Surgery.**

8. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

9) **Allocate health care resources for optimal patient care**
10) **Residents will demonstrate timeliness in completing assignments and progress notes.**
11) **Willingness and ability to teach medical students and junior residents.**
12) **Ability to lead team, including PG-1 residents, medical students, nurses, clinical pharmacist, case manager, and social worker.**

9. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Appreciation of the social context of illness.**
2) **Demonstrate the ability to act as an advocate for the rights of the patient and family in clinical situations involving ethical considerations.**

10. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Demonstrate effective skills and techniques necessary to acquire information related to patient care from various sources including the library and Internet based searches.**
2) **Demonstrate skills in educating and learning with the presentation, in an informal setting, of a topic of interest relevant to critical care medicine**
3) **Identify and acknowledge gaps in personal knowledge and skills in the care of patients with critical medical and neurological illness, and develop strategies for filling knowledge gaps that will benefit patients in the medical intensive care unit**

11. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Interact professionally toward patients, families, colleagues, and all members of the health care team.**
2) **Recognize the scope of his/her abilities and ask for supervision and assistance appropriately**
3) **Use feedback to improve performance**
4) **Demonstrate empathy, compassion, and a commitment to relive pain and suffering**
5) **Promote a culture that recognizes, supports, and responds effectively to colleagues in need**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent the majority of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR DERMATOLOGY ROTATION

Introduction:
This month-long rotation consists general rotating in the Dermatology outpatient clinic. Residents will be assigned to Asaad Al Hamad Hospital in Sabah area.

Rotation Structure and Schedule:
The resident is expected to work with consultant dermatologist on a one to one basis evaluating and managing patients presenting with common dermatological conditions.

Sample Daily Schedule on Outpatient Dermatology Clinic:
8:00 am to 1:00 pm: See patients in Dermatology clinic along with supervising attending dermatologist.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
The Internal Medicine Resident must take general medicine call, as assigned by the internal medicine program director.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

12. Medical Expert:

- **R1-R5 residents:**

By the end of the rotation, the resident will be able to:

6) **Learn to take a detailed medical history with relation to skin**
7) **Enhance ability to appropriately classify and describe skin disorder**
8) **Diagnose and manage common skin disorders with appropriate medications and therapeutic interventions**
9) **Recognize dermatologic conditions that are possibly associated with systemic conditions**
10) **Become familiar with medications and therapies for common dermatologic disorders**
11) **Be aware of referral criteria for specialist evaluation of skin disorders**
12) **Exhibit knowledge of prevention techniques for certain skin disorders.**

2. Communicator:
By the end of this rotation, the resident at all levels will be able to perform the following:

3) **Be able to put patient at ease during exam and procedures**
4) **Counsel family and patient on treatment plan**

13. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Collaborate with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.**
2) **Learn how to collaborate with patients to be true partners in their health care**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

13) **Demonstrate commitment to on-going professional development**
14) **Take initiative to advocate for quality patient care and assist patients in dealing with system complexities**
15) **Display initiative and leadership**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

5) **Apply knowledge of how to partner with other health care providers to assess, coordinate and improve patient care**
6) **Residents will practice cost-effective health care and resource allocation while advocating for quality.**

6. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Residents must be able to investigate and evaluate their patient care practices, appraise, and assimilate scientific evidence, and improve their patient care practices.**
2) **Facilitate the learning of students and other health care professionals.**

7. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

5) **Demonstrate commitment to on-going professional development**
6) **Deliver exemplary patient care commensurate with level of training, demonstrating appropriate personal and interpersonal professional behaviors.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attending with whom they have worked.

Goals and Objectives
Endocrinology, Diabetology and Metabolism Rotation

Introduction:
This two month rotation consists of combination ambulatory endocrinology clinic and inpatient consults. At the discretion of the attending (supervising) endocrinology residents are scheduled to spend equal amount of time rotating between outpatient clinic and inpatient consult service. In the outpatient clinic, they will see both new patient referrals and follow-up patients. All patients are presented to the Attending and a management plan is discussed. They are encouraged to follow patients they have seen in clinic whenever possible. Inpatient consults are presented and reviewed with attending. Inpatient consults are followed daily until discharge or the team signs off. The resident is expected to attend the Endocrinology grand rounds, and is expected to present at these rounds.

For Endocrinology rotations, residents will be assigned to specific teaching sites including Al-Amiri Hospital, Mubarak Al-Kabeer Hospital, Al-Farwaniya Hospital, Al-Jahra Hospital, or Al-Adan Hospital.

Rotation Structure and Schedule:
On the consult service, it is expected that resident sees an average of 2-3 new cases per day, and follow up on minimum of 5 cases/day.

The resident will initially perform all new consults; this will usually require 1 hour per consult, including approximately 20-30 minutes of reading time on a topic pertinent to the consult. The patient is subsequently seen jointly by the resident/student and the attending. Consultations will not be placed on the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of laboratory markers.

In the Endocrinology ambulatory clinic, the resident is expected to work with preceptor on a one to one basis seeing and evaluating patients.

Sample Daily Schedule On Inpatient Consult Service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Didactic lectures (or at least once weekly).
9:00 am to 12:30 pm: Resident follows up on old patients and work up new consults.
12:30 pm to 2:00 pm: Team gather and round on all new and old patients.

On-call Schedule:
The resident must take general medicine call, as assigned by the internal medicine program director.

Endocrinology Rotation Curriculum

Teaching Rounds:
Each new consult/patient encounter seen by the resident will form the basis for teaching rounds. The new consult is presented by the resident to the entire Endocrinology/Diabetology consult team. The team will then see the patient as a group and review relevant history and/or obtain additional history from the patient and patient record. Pertinent physical findings (positive and negative) will be reviewed at the bedside. This component will be followed by formulation of a differential diagnosis and the development of diagnostic and therapeutic plans. Additional discussion may include pathophysiology, epidemiology, natural history and complications of the disease process in question. In the event that there are no new consults on a given day, the resident/student is assigned to see patients for follow-up visits with ensuing presentation, review and discussion at the bedside.

Additional Instruction:
The resident are expected to expected to present "interesting cases" from the consult service at the morning medicine conference in great detail, and will be asked to review the literature and discuss certain aspects of the case.

Supervision:
All cases are supervised by the attending physician board certified Endocrinologist/Diabetologist.

Educational Resources to be used and Reading Lists:
A reading list compiled from current journal articles will be provided at the beginning of each rotation. Residents are referred to standard textbook of Internal Medicine (i.e. Harrison's Principles of Internal Medicine) along with board review material for quick references (MKSAP Endocrinology or Med study Endocrinology) and are expected to independently research topics related to patients that they have encountered during the rotation. Residents are encouraged to submit valuable articles they encounter for inclusion in the reading list. Residents are highly encouraged to write up cases encountered on rotation. Publication of cases encountered on rotation is highly encouraged for those interested in pursuing fellowships in Endocrinology.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7)Professional.

1. **Medical Expert:**

   - **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

1. **Obtain a complete and concise history in patients presenting with:**

   a. **Endocrine tumors and cancers.**
   b. **Diabetes mellitus type 1 and 2**
   c. **Thyroid disease**
   d. **Disorders of lipid metabolism**
   e. **Osteoporosis**
   f. **Endocrine disorders in pregnancy**
   g. **Obesity**

h. **Calcium disorders**
i. **Adrenal disorders**
j. **Anterior and posterior pituitary disorders**
k. **Hypoglycemic disorders**
l. **Androgen disorders in males and females**

2. **Demonstrate proficiency in complete and appropriate assessment of patients that will include:**

a. **clinical examination of the thyroid**
b. **clinical examination to detect diabetic complications**
c. **visual field testing by confrontation and extraocular muscle function**
d. **Interpret the results of hormonal assays in basal, stimulated and suppressed states.**
e. **Understand the use of radioisotopes in diagnosis and management of endocrine disorders**
f. **Interpret diagnostic imaging in the diagnosis of endocrine disorders**
g. **Interpreting and providing advice on glucose monitoring results.**
h. **Interpreting bone density reports.**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

1. **Meet competency stated for R1-R2 residents.**
2. **The resident will demonstrate the ability to describe the etiology, epidemiology, pathophysiology, clinical features, relevant laboratory knowledge, and the therapeutic options for major Endocrinological disease entities. This will include Demonstrate in-depth understanding of laboratory tests, and diagnostic imaging techniques in diagnosis and assessment of Endocrinological diseases, including: Alterations in the endocrine system in persons with systemic disease and/or critical illness; Disorders of glucose metabolism including hypoglycemia and hyperglycemia; Disorders of lipid metabolism; Type 1 and Type 2 diabetes mellitus including the role of nutrition, exercise, pharmacological management including but not limited to insulin pump therapy and complications; Metabolic bone disease and disorders of calcium metabolism including but not limited to disorders of the parathyroid glands and the Vitamin D system; Disorders of the thyroid gland; Disorders of reproduction in females, including disordered sexual development and gender identity, abnormalities of puberty, menstrual disorders, hypogonadism, infertility and hyperandrogenic states; Disorders of protein metabolism; Disorders of the adrenal cortex and the adrenal medulla; Disorders of the pituitary gland (anterior and posterior); Hypertension related to endocrine disorders; Screening for endocrine disorders and autoimmunity as it relates to the endocrine system; Nutrition as it applies to endocrine disorders; Endocrine tumors and cancers.**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

1. Ability to undertake a critical appraisal of the literature
2. Synthesize data to derive the most likely diagnosis (es) and differential diagnosis (es).
3. Independently choose appropriate management and therapeutic plan.
4. Demonstrate effective consultation skills in the provision of timely well-documented assessments and recommendations in written and/or verbal forms.
5. Demonstrate the attitudes and skills necessary to collaborate with other health care professionals necessary to the care of the patient.
6. Access, retrieve, critically evaluate, and apply information from all sources in maintaining the highest standard of patient evaluation, care, and management.
7. Demonstrate medical expertise in situations other than those involving direct patient care (e.g. medical presentations, patient and referring physician education, and medico-legal opinions).
8. Demonstrate insight into his/her own limitations of expertise by self-assessment.

<u>Communicator</u>:

By the end of this rotation, the resident at all levels will be able to perform the following:

1. Establish a therapeutic relationship with patients and their families, emphasizing active listening, understanding, trust, empathy, and confidentiality.
2. Demonstrate ability to provide appropriate support and counsel to a patient and family with endocrinological disorders.
3. Deliver information to a patient and family, colleagues and other professionals in an empathetic manner and in such a way that it is understandable, encourages discussion and participation in decision-making.
4. Counsels patients and/or families in an empathetic, accurate and supportive manner with attention to age, disability, gender, ethnicity, religion, level of education and cultural beliefs.
5. Discuss appropriate information with the patient, his/her family, and other healthcare providers (hospitalists, other physician requesting consultation, nursing staff, and other health professionals) to facilitate the optimal management plan for the care of the patient.
6. Articulate in writing a sound and detailed information about the patient's history, pathogenesis of their illness, and appropriate evidence-based treatment plan.
7. Present verbal reports of clinical encounters and plans effectively and in a succinct manner to Attending Staff and to other physicians requesting consultation.

3. <u>Collaborator</u>:

By the end of this rotation, the resident at all levels will be able to perform the following:

1. Demonstrate awareness of the importance of the multi-disciplinary approach required in the management of endocrine disorders, and contribute effectively to inter-disciplinary team activities.
2. Work effectively with nurses, patient educators, laboratory physicians, pharmacists, primary care providers and surgeons to optimize patient outcomes.

3. **Recognize the importance of non-adherence in the management of endocrine disorders and demonstrate strategies collaborate with the patient and his/her family to optimize compliance with treatment regimen.**
4. **Respect differences and address misunderstandings and limitations in other professionals and employ collaborative negotiation to resolve conflicts.**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

1. **Residents will demonstrate timeliness in completing assignments & performing consultations (which should typically be completed and reviewed on the day received), and progress notes.**
2. **Residents will demonstrate the ability to prioritize and perform necessary follow-up**
3. **Residents will demonstrate the use of cost/benefit ratios of diagnostic and interventions for Endocrinological disorders as well as cost containment, efficacy, and efficiency as they relate to decision making and quality assurance.**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

1. **Residents will identify the important determinants of health affecting patients, particularly those contributing to the burden of illness and disability from long-standing Endocrinological disorders.**
2. **Advocate on behalf of patients and parents for improved and timely access to specialist, and allied health care, necessary surgery, beneficial medications and therapies, and community based support services.**
3. **Demonstrate appropriate attention to prevention counseling in patient encounters.**
4. **Recognize and respond to opportunities to prevent and treat selected endocrine disorders through patient education and counseling.**

6. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

1. **Demonstrate evidence of teaching/educating consulting services and team members**
2. **Search and critically appraise current Endocrinological literature, and apply new knowledge based on appropriate evidence**
3. **Demonstrate effective oral presentation of case reports, journal club, or rounds with sound synthesis of pertinent information**
4. **Facilitate education of patients, housestaff, students and other professionals in formal and informal educational settings regarding various Endocrinological disorders, and the burden of long-term sequelae of diabetes.**
5. **Teach other housestaff in the outpatient and inpatient consultation settings**

7. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

1. **Demonstrate effective, ethical medical care with integrity, honesty, and compassion.**
2. **Display appropriate professional behaviors and inter-personal skills, including deportment, punctuality, and respect.**
3. **Demonstrate a willingness to accept peer and supervisor reviews of professional competence.**
4. **Demonstrate recognition of personal limitations of professional competence and demonstrate a willingness to call upon others with special expertise.**
5. **Strive for a balance between personal and professional roles and responsibilities.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent the majority of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR EMERGENCY MEDICINE ROTATION

Introduction:
This two-month rotation allows residents exposure to a wide range of Emergency Medicine patients. The resident will be assigned cases as per the supervising emergency medicine faculty. They will also gain knowledge and experience in airway management and advanced vascular access during their rotation with the anesthesia, radiology, and critical care services

Residents will be assigned to Emergency Departments in either Mubarak Al-Kabeer Hospital or Al-Amiri Hospital.

Rotation Structure and Schedule:
Residents will be work 8-hour shifts. In Mubarak Al-Kabeer Hospital, the resident will work 3-daytime shifts, followed by 3-afternoon shifts, followed by 3-night shifts, followed by 3 days off. In Al-Amiri Hospital, residents will work 3-daytime shifts, followed by 3-afternoon shifts, followed by 2-night shifts, followed by 2 days off.

Cases will be assigned by attending Emergency Department physician. All cases will be staffed and discussed by ED attending. All procedures will be staffed by ED attending.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

3. **Medical Expert:**

   - **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

13) **Develop initial evaluation and treatment plan for patients presenting with suspected infection, chest pain, shortness of breath, altered level of consciousness, abdominal pain, syncope**
14) **Obtain a detailed (appropriate-to-chief complaint / findings) history and physical exam in a time expedient manner**
15) **Present history and physician exam with pertinent positives and negatives to attending ED physician**
16) **Effectively assess patients' need for hospital admission and appropriate level of inpatient care.**
17) **Manage multiple patients simultaneously**
18) **Triage patients to proper level of care**
19) **Participate in medical resuscitations.**
20) **Perform CPR, defibrillation, and assist with basic airway management**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to demonstrate:

10) **Meet competency stated for R1-R2 residents.**
11) **Understanding the basic pathophysiology, clinical manifestations, diagnosis and management of acute and emergent presentations of medical illnesses, including myocardial infarction, aortic dissection, seizure disorders, gastrointestinal hemorrhage, alcohol withdrawal, decompensated diabetes, exacerbations of asthma and chronic obstructive lung disease, meningitis, drug overdose and poisoning.**
12) **Familiarity with basic pathophysiology, clinical manifestations, diagnosis and management of common gynecologic emergencies, including vaginal bleeding, spontaneous abortion, acute salpingitis, and pregnancy induced hypertension.**
13) **Familiarity with basic pathophysiology, clinical manifestations, diagnosis and management of common ophthalmologic emergencies, including ocular injuries and conjunctivitis.**
14) **Familiarity with basic pathophysiology, clinical manifestations, diagnosis and management of common musculoskeletal emergencies, including non-operative management of common fractures, ligamentous sprains and muscular strains, and acute arthritis.**
15) **Familiarity with basic pathophysiology, clinical manifestations, diagnosis and management of common otolaryngological emergencies, including epistaxis, acute pharyngitis, acute sinusitis, and obstruction of the upper airway.**
16) **Familiarity with basic clinical manifestations, diagnosis and management of common psychiatric emergencies, including attempted suicide, acute psychosis and anxiety states.**
17) **Familiarity with recognition and treatment of nonemergent conditions frequently seen in emergency rooms, including allergic reactions, dermatitis and minor burns**
18) **Recognition of signs of domestic violence, elderly abuse and other social issues which result in visits to the emergency room**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

1) **Meet competency stated for R3-R4 residents.**
2) **Choose the appropriate consultative services for a given clinical condition**
3) **Minimize unnecessary care including tests**
4) **Integrate clinical evidence into decision making**
5) **Stabilize patients with urgent or emergent medical conditions and transfer to higher level of care when necessary**
6) **Familiarity with Mubarak Al-Kabeer Hospital or Al-Amiri Hospital disaster plan, in case of chemical, biological emergency or mass casualty.**

2. Communicator:

By the end of this rotation, the resident at all levels will be able to perform the following:

5) **Communicate effectively with patients and families in a stressful Emergency Room environment.**

6) **Communicate effectively with physician colleagues in the ER & members of other health care professions to assure timely, comprehensive patient care.**
7) **Communicate effectively with consulting residents and attendings from specialty services whose assistance is needed in the evaluation or management of patients in the**
8) **Communicate effectively with colleagues when signing out patients.**

4. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

3) **To conduct a team approach in consultation with the other services.**
4) **Collaborate with other members of the health care team, pharmacist, primary care providers, hospitalists, general surgeons, or other medical/surgical subspecialties to assist patients in dealing effectively with complex systems and to improve systematic processes of care.**
5) **Effective collaboration with other members of the health care team, including residents at all levels, nurses, emergency medical personnel, social worker, and police officer.**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

16) **Resident must demonstrate self-initiative in assuming care for multiple patients.**
17) **Resident shares responsibility to identify gaps in personal knowledge and skills in the care of patients with medical emergencies.**
18) **Resident shares responsibility in expediting and facilitating the safe and timely transfer of admitted patients from the Emergency Room to the appropriate inpatient setting.**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

7) **Understand and utilize the multidisciplinary resources necessary to care optimally for patients in the Emergency Room.**
8) **Use evidence-based, cost-conscious strategies in the care of patients with medical emergencies.**
9) **To learn which appropriate services need to be involved that would be best serve the patient.**

6. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

3) **Commitment to professional scholarship, including systematic and critical perusal of relevant literature, with emphases on integration of basic science with clinical medicine, and evaluation of information in light of the principles of evidence-based medicine**
4) **Facilitate the learning of students, emergency room resident and other health care professionals.**

7. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

7) **Interact professionally toward towards patients, families, colleagues, and all members of the health care team**
8) **Recognizes their own limitations and when to ask for help**
9) **To exhibit the following characteristics: honesty, reliability, respect for others, openness to constructive criticism, concern for others.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

Goals and Objectives Gastroenterology Rotation

Introduction:
This two month rotation consists of rotations involving Gastroenterology inpatient service, Gastroenterology inpatient consult service, and gastroenterology clinic. At the discretion of the attending (supervising) gastroenterology, residents are scheduled to spend equal amount of time rotating between Gastroenterology inpatient service and Gastroenterology inpatient consult service, while attending weekly Gastroenterology clinic for the duration of the two month rotation. The resident is expected to attend the Gastroenterology grand rounds.

For Gastroenterology rotations, residents may be assigned at Mubarak Al-Kabeer Hospital, Al-Amiri Hospital, Al-Jahra Hospital, Al-Farwaniya Hospital, or Al-Adan Hospital.

Rotation Structure and Schedule:
On the inpatient GI service, residents are expected to round on a minimum of 3-5 patients per day. At the discretion of the attending supervision physician, the resident is expected to admit patients presenting with various common GI conditions (e.g. GI bleeds, inflammatory bowel disorders exacerbations, complications of cirrhosis and liver disease, biliary complications, pancreatitis, esophageal disorders, acute and chronic diarrhea etc). The resident is expected to pre-round on their patients daily, write progress notes in the chart and discuss daily progress of their patients on rounds with the rest of the GI team lead by the attending Gastroenterologist. It is expected that the resident complete their progress notes prior to rounds and, in certain instances, the residents may ask to complete a discharge summary when their patients are discharged from the service.

On the consult service, it is expected that resident sees an average of 2-4 new cases per day, and follow up on 3-5 cases/day. The resident will initially perform all new consults. The patient is subsequently seen jointly by the resident/student and the attending. Consultation note prepared by the resident will not be placed in the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of laboratory/autoimmune markers findings and radiographic/endoscopic studies. This information is used to answer a question (if stated in the consult request) or to formulate a differential diagnosis which then becomes a starting point for teaching/discussing evaluation and management points of the current and similar clinical situations.

In the outpatient Gastroenterology clinic, the resident is expected to work with preceptor on a one to one basis seeing and evaluating patients presenting with a variety of GI related disorders. To this end, residents are highly encouraged to rotate in various Gastroenterology subspecialty clinics, including Hepatology Clinic, Inflammatory Bowel Disease Clinic and general Gastroenterology Clinic.

Sample Daily Schedule on Gastroenterology Inpatient Consult Service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 12:00 am: Resident follows up on old patients and work up new consults.
12:30 pm to 2:00 pm: Team gather and round on all new and old patients.

Sample Daily Schedule on Gastroenterology Inpatient Service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Pre-Rounds on patients
9:00 am – Noon: Teaching rounds with rest of the team and GI attending
12:30 pm -2:00 pm: Teaching/Didactics/Follow up on patients.

Sample Daily Schedule on Gastroenterology Inpatient Service
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory GI clinic along with supervising GI attending.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
There is no assigned call or weekend coverage on Gastroenterology rotation. Hence, the Internal Medicine resident must take general medicine call, as assigned by the internal medicine program director.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7)Professional.

5. **Medical Expert:**

- **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

1. **Obtain a complete, concise and accurate history and physical in patients presenting with GI ailment, including but not limited to:**
   a. **Disorders of Esophagus and Stomach**
   b. **Gastrointestinal bleed**
   c. **Acute and Chronic Hepatic failure**
   d. **Inflammatory Bowel disease**
   e. **Disorders of small intestine**
   f. **Disorders of colon**
   g. **Disorder of pancreas and hepatobiliary system**

2. **To formulate an appropriate differential diagnosis and management strategy based on most common GI disorders**
3. **To perform abdominal paracentesis and interpret the laboratory analysis of peritoneal fluid.**
4. **To perfect placement of nasogastric and oral gastric feeding tubes.**

Gastrointestinal disease

1) Upper and lower gastrointestinal hemorrhage
2) Dysphagia
3) Nausea and vomiting;
4) Regurgitation
5) Acute and chronic abdominal pain
6) Malabsorption syndromes
7) Acute and chronic diarrhea
8) Acute and chronic constipation
9) Abnormal liver enzymes
10) Jaundice
11) Ascites
12) Encephalopathy
13) Bacterial peritonitis
14) Intestinal obstruction

Esophageal disease

1) Gastro-esophageal reflux and its complications
2) Esophageal motility disorders
3) Esophageal cancer
4) Hiatus hernia
5) Esophageal varices

Gastro-duodenal disease

1) Peptic ulcers
2) Gastritis
3) Gastric motility disorders
4) Gastric cancer

Pancreatic disease

1) Acute and chronic pancreatitis
2) Pancreatic cancer

Biliary tract disease

1) Cholelithiasis and its complications
2) Sclerosing cholangitis
3) Biliary cancers

Small and large bowel disease

1) Celiac disease and other diseases causing malabsorption
2) Inflammatory bowel disease
3) Infectious diseases (Clostridium difficile and Fecal Microbiota Transplant)
4) Small bowel neoplasia
5) Colorectal Cancer
6) Diverticular disease
7) Irritable bowel syndrome

Liver disease

1) **Acute and chronic hepatitis**
2) **Biliary tract diseases**
3) **Cirrhosis and its complications**
4) **Cancer: primary and metastatic**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

3. **Meet competency stated for R1-R2 residents.**
4. **The resident will demonstrate the ability to describe the etiology, epidemiology, pathophysiology, clinical features, relevant laboratory knowledge, and the therapeutic options for major gastrointestinal diseases, including:**

❖ **Gastrointestinal disease**

15) **Upper and lower gastrointestinal hemorrhage**
16) **Dysphagia**
17) **Nausea and vomiting;**
18) **Regurgitation**
19) **Acute and chronic abdominal pain**
20) **Malabsorption syndromes**
21) **Acute and chronic diarrhea**
22) **Acute and chronic constipation**
23) **Abnormal liver enzymes**
24) **Jaundice**
25) **Ascites**
26) **Encephalopathy**
27) **Bacterial peritonitis**
28) **Intestinal obstruction**

❖ **Esophageal disease**

6) **Gastro-esophageal reflux and its complications**
7) **Esophageal motility disorders**
8) **Esophageal cancer**
9) **Hiatus hernia**
10) **Esophageal varices**

❖ **Gastro-duodenal disease**

5) **Peptic ulcers**
6) **Gastritis**
7) **Gastric motility disorders**
8) **Gastric cancer**

❖ **Pancreatic disease**

3) **Acute and chronic pancreatitis**
4) **Pancreatic cancer**

- **Biliary tract disease**
  4) **Cholelithiasis and its complications**
  5) **Sclerosing cholangitis**
  6) **Biliary cancers**

- **Small and large bowel disease**
  8) **Celiac disease and other diseases causing malabsorption**
  9) **Inflammatory bowel disease**
  10) **Infectious diseases (Clostridium difficile and Fecal Microbiota Transplant)**
  11) **Small bowel neoplasia**
  12) **Colorectal Cancer**
  13) **Diverticular disease**
  14) **Irritable bowel syndrome**

- **Liver disease**
  5) **Acute and chronic hepatitis**
  6) **Biliary tract diseases**
  7) **Cirrhosis and its complications**
  8) **Cancer: primary and metastatic**

5. **To demonstrate a thorough knowledge of the indications, limitations and major complications of liver biopsy, endoscopy, ERCP, esophageal motility studies, and radiology of the GI tract**
6. **To recognize the following radiological abnormalities: (a) Plain films: mechanical obstruction, ileus, perforated viscus; (b) Contrast studies: esophageal stricture, achalasia, peptic ulcer, esophageal and gastric cancer, diverticulosis, colonic polyps, colon cancer, Crohn's disease, ulcerative colitis; (c) US/CT scans: gallstones, acute cholecystitis, CBD obstruction, pseudocysts of the pancreas, acute pancreatitis, cancer of the liver/pancreas, ascites.**
7. **Demonstrate understanding of indications/contraindications, administration, monitoring and complications of common biologic Agents used in treatment of Inflammatory Bowel disease.**
8. **Demonstrate understanding of indications/contraindications, administration, monitoring and complications of common direct-acting antivirals (DDA) used in treatment of Hepatitis C.**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

9. **Ability to undertake a critical appraisal of the literature**
10. **Synthesize data to derive the most likely diagnosis (es) and differential diagnosis (es).**
11. **Independently choose appropriate management and therapeutic plan.**
12. **Independently be able to handle gastrointestinal emergency including Gastrointestinal bleed; hepatic encephalopathy; hepatorenal syndrome; bowel obstruction; severe clostridium difficile colitis, etc.**
13. **Demonstrate effective consultation skills in the provision of timely well-documented assessments and recommendations in written and/or verbal forms.**

14. **Demonstrate the attitudes and skills necessary to collaborate with other health care professionals necessary to the care of the patient.**
15. **Access, retrieve, critically evaluate, and apply information from all sources in maintaining the highest standard of patient evaluation, care, and management.**
16. **Demonstrate insight into his/her own limitations of expertise by self-assessment**

2. <u>Communicator</u>:

By the end of this rotation, the resident at all levels will be able to perform the following:

8. **Establish a therapeutic relationship with patients and their families, emphasizing active listening, understanding, trust, empathy, and confidentiality.**
9. **Demonstrate an appreciation of the patients' perception of health, concerns, and expectations and the impact of the gastrointestinal disease on the patient and the family while considering factors such as the patient's age, gender, cultural, and socioeconomic background and spiritual values.**
10. **Discuss appropriate information with the patient, his/her family, and other healthcare providers (hospitalists, intensivists, other physician requesting consultation, nursing staff, and other health professionals) to facilitate the optimal management plan for the care of the patient.**
11. **Articulate in writing a sound and detailed information about the patient's history, pathogenesis of his/her infectious illness, and appropriate evidence-based treatment plan.**
12. **Communicate verbally a succinct assessment and management plan to Attending Staff and to other physicians requesting consultation.**

3. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

5. **Residents will collaborate with other specialists to optimize management of patient with Gastrointestinal disease.**
6. **Residents will collaborate with pharmacologists and infectious diseases physicians to ensure appropriate Biologic dosing and DDA is administered.**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

4. **Residents will demonstrate timeliness in completing assignments & performing consultations (which should typically be completed and reviewed on the day received), and progress notes.**
5. **Residents will demonstrate the ability to prioritize and perform necessary follow-up**
6. **Residents will demonstrate the use of cost/benefit ratios of diagnostic and interventions for gastrointestinal disorders as well as cost containment, efficacy, and efficiency as they relate to decision making and quality assurance.**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

5. **Residents will identify the important determinants of health affecting patients, particularly those contributing to the burden of illness and disability from chronic gastrointestinal disorders, including GERD, IBS, IBD, celiac disease and chronic pancreatitis.**
6. **Advocate on behalf of patients and parents for improved and timely access to specialist, and allied health care, necessary surgery, beneficial medications and therapies, and community based support services.**

6. Scholar:
By the end of this rotation, the resident at all levels will be able to perform the following:

6. **Demonstrate evidence of teaching/educating consulting services and team members**
7. **Search and critically appraise current Gastrointestinal literature, and apply new knowledge based on appropriate evidence**
8. **Demonstrate effective oral presentation of case reports, journal club, or rounds with sound synthesis of pertinent information**
9. **Facilitate education of patients, housestaff, students and other professionals in formal and informal educational settings.**

7. Professional:
By the end of this rotation, the resident at all levels will be able to perform the following:

6. **Demonstrate appropriate professional behavior during interactions with other team members including, pharmacists, nurses and secretarial and clerical staff members.**
7. **Demonstrate a willingness to accept peer and supervisor reviews of professional competence.**
8. **Demonstrate recognition of personal limitations of professional competence and demonstrate a willingness to call upon others with special expertise.**
9. **Appropriate attendance and punctuality at clinical rounds, and clinics**
10. **Deliver highest quality care with integrity, honesty, and compassion**
11. **Demonstrate appropriate interpersonal and professional behavior**
12. **Practice medicine ethically consistent with the obligations of a physician**
13. **Be aware of the ethical and legal aspects of patient care**
14. **Strive for a balance between personal and professional roles and responsibilities.**

Evaluations:
Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent the majority of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR GERIATRIC ROTATION

Introduction:

This two-month rotation consists of rotations involving a mixture of inpatient geriatric unit and inpatient geriatric consult team and rotating through a biweekly geriatric ambulatory clinic. The resident is expected to make an oral presentation on a clinical case and /or a relevant to field of geriatrics during daily internal medicine morning report on at least one occasion during their rotation.

For geriatric rotation, residents will be assigned to Mubarak Al-Kabeer Hospital.

Rotation Structure and Schedule:

On the consult service, it is expected that resident sees a minimum of than 3-4 new cases per day, and follow up on no more than 1-2 cases/day. The resident will initially perform all new consults. The patient is subsequently seen jointly by the rest of geriatric team. Consultation note prepared by the resident will not be placed in the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical as well as management of of specific diseases common in the hospitalized elderly, including delirium, pain, dysphagia, immobility and pressure ulcers, alteration of hearing and vision, rational drug prescribing, failure to thrive, depression, constipation, terminal phase of malignant and non-malignant illness.

In the outpatient geriatric clinic, the resident is expected to work with consultant geriatrician on a one to one basis evaluating and managing patients presenting with common geriatric syndrome, including mild cognitive impairment, dementia, falls, urinary and fecal incontinence, depression, constipation, polypharmacy, frailty, and nutritional deficiencies.

Sample Daily Schedule on geriatric consult service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 11:00 am: Resident follows up on old patients and work up new consults.
11:00 am to 1:00 pm: Team gather and round on all new and old patients.
1:00 pm -2:00 pm: Closing (sit in) rounds and didactic teaching session.

Sample Daily Schedule on Ambulatory Geriatric Clinic:
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory Geriatric clinic along with supervising attending Geriatrician.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
The Internal Medicine resident must take general medicine call, as assigned by the internal medicine program director.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

6. **Medical Expert:**

- **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

21) **The resident will demonstrate the ability to perform an appropriate history and physical examination on the geriatrics patient, including the use of formal geriatric assessment tools, and to present these findings in an appropriate manner.**
22) **Distinguish between normal aging and the diseases of aging.**
23) **Expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of elderly patients**
24) **Recognize the common "atypical presentations" of illness in elderly patients**
25) **Describe the basic approach to the "geriatric giants" including: a. Falls b. Urinary incontinence c. Delirium d. Dementia 4. Demonstrate understanding of the clinical sequelae of frailty including atypical presentation.**
26) **Describe the basic approach to manage conditions that are common in elderly patients including; a. Parkinson's disease b. Constipation c. Osteoarthritis d. Polymyalgia rheumatica, temporal arteritis e. Osteoporosis f. Depression**
27) **Describe the impact aging has on pharmacology and safe drug prescribing.**
28) **Appropriately prescribe medications in elderly patients**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

19) **Meet competency stated for R1-R2 residents.**
20) **The resident will demonstrate medical knowledge in geriatrics, including the appropriate evaluation and treatment of psychosocial issues of aging; "geriatric syndromes" such as incontinence, falls, dementia, and behavioral and sleep disorders in the elderly, common issues in geropsychiatry, and the use of community agencies in the care of the elderly.**
21) **Understand the important alterations in pharmacokinetics and pharmacological effect of medications in commonly prescribed for elderly patients.**
22) **Recognize, evaluate, and initiate appropriate treatment for geriatric syndromes.**
23) **Counsel patients regarding geriatric health maintenance and screening: osteoporosis, breast cancer, colon cancer, prostate cancer, influenza immunization, pneumococcal pneumonia immunization, hearing, vision, diabetes, kidney disease, hypothyroidism, social concerns (e.g. abuse, housing, supports)**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

7) **Meet competency stated for R3-R4 residents.**
8) **Lead discussions of both general management and end-of-life issues with families.**
9) **The ability to interpret appropriate data related to the geriatrics patient and arrive at reasonable diagnostic and management decisions, weighing alternatives, benefits, and risks of diagnostic and therapeutic options, and co-managing patients appropriately with other specialists.**
10) **Independently construct an appropriate geriatric care plan for the common geriatric clinical syndromes.**

2. Communicator:

By the end of this rotation, the resident at all levels will be able to perform the following:

4) **Recognize and deal effectively with the communication challenges resulting from cognitive impairment in elderly patients**
5) **Demonstrate ability to discuss end-of-life care issues and advance directives with older patients and their families (When culturally appropriate)**
6) **Maintains clear and accurate medical records**

7. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

6) **The ability to work cooperatively with other health professionals as part of a health care team, showing an understanding and respecting the roles of other health disciplines (social workers, physical therapists, occupational therapists, speech therapists, pharmacists, nursing staff, nutritionists, case managers).**
7) **Collaborate with other clinicians (Hospitalists; orthopedic surgeons; Hematologist-Oncologists; intensivists; cardiologists; neurologists) into the assessment phase of care.**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

19) **To document in a timely manner all elements required for the medical record system including consult note with functional and cognitive status, progress notes, special notes (e.g. pain assessments, fall notes).**
20) **To demonstrate follow up of diagnostic test results and notifying the patient and family.**
21) **To teach junior staff and medical students about care of the geriatric patient.**
22) **Demonstrate improvement in clinical management of elderly patients by continually improving knowledge and skills during the rotation.**
23) **Lead Function multidisciplinary geriatric care team, including nurses, social workers, physical therapists, and other providers, to facilitate coordinated care.**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

10) **Act as an advocate of the right of the older adult to autonomy and decision making.**
11) **Advocate for the right of older adult against elder abuse, neglect, and exploitation.**
12) **To demonstrate knowledge of the resources available for elderly care in the community**
13) **To practice cost-effective medicine**

6. <u>Scholar</u>:

By the end of this rotation, the resident at all levels will be able to perform the following:

4) **Exhibit self-directed learning through patient-centered learning and independent use of recommended resources.**
5) **Use information technology to access materials for self-education. Utilize clinical practice guidelines and current literature to generate appropriate geriatric and palliative care plans.**
6) **To present and write up clinical cases.**

7. <u>Professional</u>:

By the end of this rotation, the resident at all levels will be able to perform the following:

10) **Understand and compassionately respond to issues of culture, age, sex, and disability for all elderly patients and their families.**
11) **Recognize the importance of psychological and spiritual support for elderly patients and their families.**
12) **Reflect awareness of common ethical and legal issues related to end of life care facing elderly patients, their families, and caregivers.**
13) **Sensitively respond to patient and family questions and decisions regarding advance directives, DNR status, futility, and withholding/withdrawing therapy.**
14) **Demonstrate proper professional attitudes with respect to attendance and punctuality.**

<u>Evaluations</u>:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR HEMATOLOGY ROTATION

Introduction:
This two-month rotation consists of rotations involving a mixture of inpatient hematology unit and inpatient consult service. In addition, residents will rotate in weekly hematology outpatient clinic. The resident is expected to make an oral presentation on a clinical case and /or a relevant hematology topic during weekly morning report on at least one occasion during their rotation.

For hematology rotation, residents will be assigned to Mubarak Al-Kabeer Hospital, Al-Amiri Hospital, Al-Adan Hospital, Jahra Hospital or Farwanieyha Hospital.

Rotation Structure and Schedule:
On the inpatient hematology unit, residents are expected to round on a minimum of 2-3 patients per day. At the discretion of the attending supervision physician, the resident is expected to admit patients presenting with hematological disease, including sickle cell crisis, severe thrombocytopenia resulting from ITP, TTP, or treatment-related; acute leukemia for induction or consolidation; and patients with congenital bleeding diatheses. The resident is expected to pre-round on their patients daily, write progress notes in the chart and discuss daily progress of their patients on rounds with the rest of the hematology team lead by the consultant hematologist. It is expected that the resident completes their progress notes prior to rounds and, in certain instances, the residents may ask to complete a discharge summary when their patients are discharged from the service.

On the consult service, it is expected that resident sees an average of 1-2 new cases per day, and follow up on minimum of 1-2 cases/day. The resident will initially perform all new consults. The patient is subsequently seen jointly by the rest of hematology team. Consultation note prepared by the resident will not be placed in the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of common hematologic diagnostic studies and the significance of their results, including identify normal findings and common abnormalities on peripheral blood smears.

In the outpatient hematology clinic, the resident is expected to work with consultant hematologist on a one to one basis evaluating and managing patients presenting with common hematological problems and diseases including: Erythrocyte disorders (Production problems; Hemolytic problems); Platelet disorders; Bleeding disorders (Inherited and acquired); Thrombotic disorders (Antiphospholipid antibody syndrome; Thrombotic microangiopathic anemia syndrome; Thrombophilia (inherited and acquired); Antithrombotic and prophylactic therapy).

Sample Daily Schedule on hematology inpatient service & consult service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Resident follows up on old patients and work up new consults.

9:00 am to 9:30 am: Team meets in lab to go over normal findings and common abnormalities on peripheral blood smears
9:30 am to 11:00 am: Team gather and round on all new and old patients.

11:00 am – 12:30 pm: Resident follows up on old consults and work up new consults
12:30 pm -2:00 pm: Team gather and round on all new and old patients.

Sample Daily Schedule on Outpatient Hematology Clinic:
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory hematology clinic along with supervising attending hematologist.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
The Internal Medicine resident must take general medicine call, as assigned by the internal medicine program director.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

8. **Medical Expert:**

- **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

29) **The resident will demonstrate competency to perform and accurate history and physical and present pertinent positives and negatives relevant to hematological diagnoses; synthesize these data and arrive at an initial plan for diagnosis and treatment**
30) **The resident demonstrates understanding of the basic principles of diagnosis (e.g., the importance of pathological diagnosis) and therapy for malignant diseases and blood disorders**
31) **The resident will demonstrate understanding of the major anticoagulants and the principles of their control.**
32) **The resident demonstrates understanding of the diagnosis and management of thrombophilia and venous thromboembolic disease.**
33) **The resident demonstrates understanding of the principles of blood component therapy, including indications for transfusion of blood components. management of neutropenia and immunosuppression**
34) **The resident demonstrates understanding of indication and interpretation of diagnostic studies, including peripheral blood smears, bone marrows, and biopsy specimens.**
35) **The resident demonstrates understanding and knowledge in management of of neutropenia and immunosuppression.**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

24) **Meet competency stated for R1-R2 residents.**
25) **The resident will learn the pathophysiology, prevention, evaluation and management of common hematology problems including: anemia and abnormalities of peripheral blood smear, hemoglobinopathies, bleeding, bruising, petechiae, family history of anemia or bleeding disorder, lymphadenopathy, pallor or fatigue, recurrent infections, fever/neutropenia, splenomegaly, venous or arterial thrombosis, polycythemia, neutropenia, leukocytosis, thrombocytopenia, thrombocytosis, coagulopathy, and common hematologic malignancies.**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

11) **Meet competency stated for R3-R4 residents.**
12) **Demonstrate proficiency in management of hematological emergencies including Thrombotic thrombocytopenic purpura, transfusion complications, febrile neutropenia in high risk patients, fever in splenic patient, sickle cell crisis, Hyperleukocytosis and Leukostasis, disseminated intravascular coagulation, Autoimmune hemolytic anemia induced by drugs, Hypercalcemia associated with hematological malignancy, and superior vena cava syndrome (SVCS).**

2. Communicator:

By the end of this rotation, the resident at all levels will be able to perform the following:

9) **Develops a good working relationship with other physicians, health care professionals, and patients (resident explains plans to patients and their families, and put them at ease).**
7) **Presents in a well-thought out manner. The presentations are concise, accurate, and provide adequate information for initial diagnosis and treatment**
8) **Maintains clear and accurate medical records**

9. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

8) **Work effectively with, and enhance the interdisciplinary team involved in the delivery of medical care.**
9) **Work effectively in an interdisciplinary team, showing an understanding and respecting the roles of other health disciplines (social workers, pharmacists, nursing staff, nutritionists, case managers).**

4. Leader:
By the end of this rotation, the resident at all levels will be able to perform the following:

24) **Document history and physical/consult on chart within 24 hours of admission or consultation and write daily progress note.**
25) **Follow through promptly with scholarly assignments.**
26) **Interact respectfully with all healthcare team members**
27) **Maintain patient confidentiality.**
28) **critically appraising medical literature, and apply evidence to the care of patients.**

5. Health Advocate:
By the end of this rotation, the resident at all levels will be able to perform the following:

14) **Demonstrate the incorporation of cost-awareness principles into standard clinical judgments and decision making.**
15) **Demonstrate knowledge of systems of care available for dying patients and their families including the use of advance directives and hospice care.**
16) **Describe indications for the use of blood products, cite issues related to blood bank and community blood supply.**
17) **Demonstrate understanding of the circumstances under which the general internist should consult others in the care of patients with hematological disorders.**
18) **Serve as a consultant to other services with proper faculty input.**

6. Scholar:
By the end of this rotation, the resident at all levels will be able to perform the following:

7) **Critically appraise medical literature as it pertains to managing patients with hematological disorders.**
8) **Demonstrate use of the literature in management of patients with hematological diseases.**
9) **Facilitate the learning of other members of the healthcare team through presentations at Hematology Conference and at the bedside.**

7. Professional:
By the end of this rotation, the resident at all levels will be able to perform the following:

15) **Demonstrates respect, compassion, and integrity to patients, families, and other health professionals**
16) **Recognize the scope of his/her abilities and ask for supervision and assistance as appropriate.**
17) **Respond promptly to phone calls and pagers.**
18) **Truthfully document and report clinical information**
19) **Demonstrate proper professional attitudes with respect to attendance and punctuality.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

Goals and Objectives of Allergy and Immunology Rotation for Internal medicine residency
Educational Purpose

The allergy and immunology rotation provides an opportunity for internal medicine residents to have basic exposure to the principles of the field of allergy and immunology. It is a one month rotation in Mubarak Hospital.

Many clinical states caused by allergic or immunologic disorders are regularly encountered by the general internist. Patient allergies can cause profound occupational and socioeconomic changes as well as require extensive environmental alterations.
Each resident should develop an understanding of basic allergic and immunologic disease processes and how to initiate work-ups and treatment of those disorders. The resident should also gain an understanding of when consultation with an allergist is indicated.
Teaching Methods
Residents in the allergy and immunology rotation will participate in supervised patient encounters, discussion sessions with the attending, suggested readings, and may be required to prepare an oral presentation as per the direction of the faculty.
Disease Mix

The following disorders will be reviewed during the rotation with the supervising attending or through direct patient interactions:
1. Outpatient asthma management, including evaluation of pulmonary function tests
2. Asthma diagnosis, pathophysiology and treatment
3. Rhinitis, classification, diagnosis and treatment
4. Atopic dermatitis
5. Anaphylaxis, diagnosis and treatment
6. Drug reactions, diagnosis and treatment
7. Food reactions, diagnosis and treatment
8. Urticaria/Angioedema, diagnosis and treatment
9. Initial evaluation of immunodeficiency states
10. Allergy skin testing
11. Status asthmaticus, diagnosis and treatment
12. Sinusitis
13. Non-asthmatic immunologic lung disease (i.e. hypersensitivity pneumonitis)
14. Vasculitis and other systemic inflammatory disorders

Patients are mainly outpatients presenting in non-acute settings. Patients evaluated by the resident will range from adolescent to older adults. A wide range of the clinical management problems noted above will be encountered including initial evaluation, chronic maintenance, and relapse. Inpatient consultations may also provide the opportunity for residents to evaluate acute allergy and Immunology cases. The resident will be supervised at all times by the attending allergist who is present on site. The resident will also have the opportunity to work with nurse practitioners as well as other specialized ancillary staff as they participate in the various aspects of patient care.

Performance Evaluation

Resident performance will be assessed through direct observation on teaching and management rounds, active participation during discussions on teaching rounds, chart audit and review, and input from the fellow, peers, and support personnel.

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

Goals and Objectives Infectious Diseases Rotation

Introduction:

The resident will join the Microbiology/Infectious Disease Consultation Service (MIDCS) in-patient consultation team at Mubarak Al-Kabeer Hospital and rotate in Infectious Disease Hospital. The resident will spend 4 weeks on the in-patient consult service, and 2 weeks rotating at IDH.

On the consult service, residents will see patients on ICU setting, inpatient medical ward and inpatient subspecialty services. Residents will familiarize themselves with the diagnosis and management of clinical infectious diseases. They will learn a broad overview of antimicrobial therapy and become able to use antimicrobial agents in an effective, safe and cost-efficient manner. Residents will be introduced to the microbiology laboratory and the appropriate use of laboratory investigations in the diagnosis and management of infections. They will be grounded in the epidemiology, economics and prevention of infectious diseases and in infection control. MIDCS team is composed of either a board-certified infectious Disease consultant or Clinical Microbiologist consultant, who serves as the head of the team. There will be pharmacologist and pharm D. graduate student with expertise in infectious diseases will rotate with the team. Additionally, on occasions, there will be a clinical microbiology resident and upper level medical student.

At the Infectious Disease Hospital, the resident will rotate in tropical medicine disease clinic, HIV outpatient clinic, inpatient infectious Disease service. The resident will be exposed to tropical and local infectious diseases, including Brucellosis, malaria and typhoid fever. The main objective of the service is to familiarize the resident with the diagnoses and management of common tropical diseases encountered in Kuwait. Additionally, the resident will be introduced to clinical management of patients with HIV.

Rotation Structure and Schedule:

On the consult service, it is expected that resident sees an average of 2 new cases per day, and follow up on an average of 5 cases/day. Residents are not expected to work on weekends or take after hour calls on the MIDCS.

The resident will initially perform all new infectious diseases consultations; this will usually require 1 to 1.5 hours per consult, including approximately 20-30 minutes of reading time on a topic pertinent to the consult. The patient is subsequently seen jointly by the resident/student and the attending. Consultations will not be placed on the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of laboratory/microbiology findings and radiographic studies. This information is used to answer a question (if stated in the consult request) or to formulate a differential diagnosis which then becomes a starting point for teaching/discussing evaluation and management points of the current and similar clinical situations.

At the Infectious Disease Hospital, the resident will be assigned for one week to rotate on Inpatient Units. The second week, the resident will rotate in the tropical medicine clinic and HIV clinic. The resident is expected to work with preceptor on a one to one basis seeing and evaluating patients.

Sample Daily Schedule On Inpatient Consult Service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Didactic lectures.
9:00 am to 12:30 pm: Resident follows up on old patients and work up new consults.
12:30 pm to 2:00 pm: Team gather and round on all new and old patients.

Sample Daily Schedule at IDH:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:30 am to 9:30 am: Didactic lectures.
9:30 am to 12:30 pm: Residents attends daily rounds and/or attend clinics.
1:00 pm to 2:00 pm: Free team/catch on reading.

On-call Schedule
Due to the fact that during the Infectious Diseases rotation at both the MKH and IDH, there is no assigned call or weekend coverage; the Internal Medicine resident must take general medicine call, as assigned by the internal medicine program director.

Infectious Diseases Rotation Curriculum

Teaching Rounds:
Each new consult/patient encounter seen by the resident will form the basis for teaching rounds. The new consult is presented by the resident to the entire infectious diseases consult team. The team will then see the patient as a group and review relevant history and/or obtain additional history from the patient and patient record. Pertinent physical findings (positive and negative) will be reviewed at the bedside. This component will be followed by formulation of a differential diagnosis and the development of diagnostic and therapeutic plans. Additional discussion may include pathophysiology, epidemiology, natural history and complications of the infection/pathogen in question. In the event that there are no new consults on a given day, the resident/student is assigned to see patients for follow-up visits with ensuing presentation, review and discussion at the bedside.

Similarly, each patient encounter at IDH will serve as basis for learning opportunity, pertaining to pathophysiology, natural history and complications of the infection/pathogen in question, and treatment approach.

Additional Instruction:
The resident on the MIDSC are expected to expected to present "interesting cases" from the consult service at the morning medicine conference in great detail, and will be asked to review the literature and discuss certain aspects of the case. Alternatively, the resident may be asked to present a topic of interest related to infectious disease at IDH morning report.

Supervision:
All cases are supervised by the attending physician, either a board certified clinical microbiologist or board certified infectious disease physician.

Educational Resources to be used and Reading Lists:
A reading list compiled from current journal articles will be provided at the beginning of each rotation. A copy of these articles will be maintained in a binder with the ID attending. Residents/students are referred to standard textbooks of Internal Medicine and Infectious Diseases and are expected to independently research topics related to patients that they have encountered during the rotation. Residents/students are encouraged to submit valuable articles they encounter for inclusion in the reading list.

Objectives and Core Competency:

Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7)Professional.

10. **Medical Expert:**

- **R1-R2 residents:**
  By the end of the rotation, the resident will be able to:

  a. **Describe pathophysiology, diagnosis and management of acute and chronic infections including: community acquired/Hospital Acquired/Ventilator acquired pneumonia; Urinary tract infections (uncomplicated vs complicated vs pyelonephritis; Infectious Endocarditis; skin and soft tissue infections; CNS infections; intra-abdominal infections; fever in hospitalized patient; malaria; infectious diarrhea including clostridium difficile infection; neutropenic fever; infections in immunocompromised patient including HIV patient).**
  b. **Identify spectrum of activity, adverse effects and dose adjustments for antibiotics; antifungals and antivirals.**
  c. **Demonstrate appropriate history taking and examination skills for patients presenting with infectious diseases.**

- **R3-R4 residents:**
  By the end of the rotation, the resident will be able to:

  a. **Meet competency stated for R1-R2 residents.**
  b. **The medical resident will demonstrate the ability to describe the etiology, epidemiology, pathophysiology, clinical features, relevant laboratory knowledge, and the therapeutic options for major infectious disease entities. This will include disease entities that are caused by bacteria, fungi, viruses, protozoa and helminthes.**
  c. **Enhanced knowledge of the microbiology of common infectious diseases and how this influences empiric antimicrobial choices**
  d. **Develop an understanding of the basic antimicrobial pharmacology including their mechanisms of action & resistance, indications and adverse reactions and demonstrate an ability to utilize them appropriately**
  e. **Understand the basic principles of infection control with emphasis on practices to reduce nosocomial transmission and understand when to suspect resistant organisms**

f. **Demonstrate an understanding of importance of vaccinations and vaccination schedule for adult patient.**

- **<u>R5 resident</u>:**
  By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

a. **Evaluation and treatment of fever of Unknown source in hospitalized patient**
b. **Evaluation and treatment of <u>complicated</u> blood stream infections, including staphylococcus Aureus bacteremia.**
c. **Evaluation and management of patients with <u>complicated</u> skin and soft tissue infections, including diabetic foot infection and osteomyelitis.**
d. **Evaluation and management of hospitalized patients presenting with <u>multidrug-resistant</u> (MDR), <u>extensively drug-resistant</u> (XDR) and <u>pandrug-resistant (PDR)</u> nosocomial infections.**
e. **Evaluation and management of patients presenting with complicated Hospital-Acquired CNS infections, complicated pulmonary infections (i.e empyema), cardiac device infections, or intraabdominal infections.**
f. **Evaluation and management of immunocompromised patients presenting with infectious disease.**
g. **To serve as a conduit/liaison between infectious disease hospital and medicine teams, managing HIV and non-HIV patients who may be too ill to be transferred to the infectious disease hospital.**
h. **Finally, most importantly, to promote antibiotic stewardship and define the appropriate antibiotic for the specific infectious disease.**

11. <u>Communicator</u>:

By the end of this rotation, the resident at all levels will be able to perform the following:

a. **Establish a therapeutic relationship with patients with infectious disease medically related problem, emphasizing understanding, trust, empathy, and <u>confidentiality.</u>**
b. **Elicit and synthesize relevant information from the patient and/or family, and be able to assess and take into account, the impact of a patient's age, gender, ethno-cultural background, social supports, travel history, animal contact, vaccination history, and emotional influences on infectious illness.**
c. **Discuss appropriate information with the patient, his/her family, and other healthcare providers (hospitalists, intensivists, other physician requesting consultation, nursing staff, and other health professionals) to facilitate the optimal management plan for the care of the patient.**
d. **Articulate in writing a sound and detailed information about the patient's history, pathogenesis of his/her infectious illness, and appropriate evidence-based treatment plan.**
e. **Communicate verbally a succinct assessment and management plan to Attending Staff and to other physicians requesting consultation.**

12. <u>Collaborator</u>:

By the end of this rotation, the resident at all levels will be able to perform the following:

a. **Residents will collaborate with other specialists to discuss/arrange non-antimicrobial related interventions important in a patient's care (eg. debridement/wound care/line placement & removal etc).**
b. **Residents will collaborate with Clinical Microbiologists to ensure appropriate workup of clinical specimens based on clinical information.**
c. **Residents will collaborate with pharmacologists to ensure appropriate antibiotic dosing and schedule is administered.**
d. **Residents will collaborate with public health service to ensure appropriate vaccines are administered to patients, when indicated.**
e. **Residents will collaborate with infection control personnel to ensure appropriate infection control guidelines are enforced.**

13. **Leader:**
By the end of this rotation, the resident at all levels will be able to perform the following:

    a. **Residents will demonstrate timeliness in completing assignments & performing consultations (which should typically be completed and reviewed on the day received)**
    b. **Residents will demonstrate the ability to prioritize and perform necessary follow-up**
    c. **Residents should understand how the microbiology laboratory can be optimally utilized to provide patient care in a cost effective manner**
    d. **Residents will develop an understanding of when additional information is required by the microbiology laboratory to ensure appropriate specimen collection/processing and data interpretation**

14. **Health Advocate:**
By the end of this rotation, the resident at all levels will be able to perform the following:

a. **To recognize the importance of using antibiotics appropriately to reduce the emergence of antibiotic resistant organisms.**
b. **To identify important strategies to prevent infectious disease.**
c. **Define and understand the role of infection control in the hospital and health care environment.**
d. **To demonstrate advocacy for patients**

15. **Scholar:**
By the end of this rotation, the resident at all levels will be able to perform the following:

a. **Demonstrate evidence of teaching/educating consulting services and team members**
b. **Search and critically appraise current infectious diseases literature, and apply new knowledge based on appropriate evidence**
c. **Demonstrate effective oral presentation of case reports, journal club, or rounds with sound synthesis of pertinent information**
d. **Facilitate learning of patients, housestaff, students and other professionals**

16. **__Professional__:**
By the end of this rotation, the resident at all levels will be able to perform the following:

a. **Demonstrate appropriate professional behavior during interactions with other infectious diseases team members including, microbiology laboratory staff, infection control practitioners, pharmacists, nurses and secretarial and clerical staff members.**
b. **Appropriate attendance and punctuality at clinical rounds, and clinics**
c. **Deliver highest quality care with integrity, honesty, and compassion**
d. **Demonstrate appropriate interpersonal and professional behavior**
e. **Practice medicine ethically consistent with the obligations of a physician**
f. **Be aware of the ethical and legal aspects of patient care**
g. **Show recognition of personal limits through appropriate consultation (with staff supervisors, other physicians, and other health professionals) and show appropriate respect for those consulted**
h. **Demonstrate including the patient in discussions of care management**
i. **Recognize potential conflict in patient care situations, professional relationships, and value systems, and demonstrate the ability to discuss and resolve differences of opinion. Additionally, be able to accept constructive feedback and criticism and implement appropriate advice.**

__Evaluations__:
Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent the majority of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR NEPHROLOGY ROTATION

Introduction:

This two month rotation consists of rotations involving Nephrology inpatient service, Nephrology inpatient consult service, and Nephrology clinic. At the discretion of the attending (supervising) nephrologist, residents are scheduled to spend equal amount of time rotating nephrology inpatient service and nephrology inpatient consult service, while attending weekly nephrology clinic and spending at least couple of weeks in the dialysis center . The resident is expected to attend the monthly nephrology grand rounds, which are part of general medicine morning report, on Tuesday morning and is expected to present at these rounds on at least one occasion. Additionally, while at rotating at Mubarak Al-Kabeer Hospital, residents are required to attend intra-departmental nephrology meeting on Tuesdays.

For Nephrology rotations, residents may be assigned at Mubarak Al-Kabeer Hospital or Al-Amiri Hospital.

Rotation Structure and Schedule:

On the inpatient nephrology service, residents are expected to round on an average of 3-5 patients per day. At the discretion of the attending supervision physician, the resident is expected to admit patients presenting with various common End-Stage Kidney disease related issue, including electrolytes derailment, volume overload, malfunctioning dialysis catheter access, infected dialysis catheter site, complicated urinary tract infection in ESRD patients etc. The resident is expected to pre-round on their patients daily, write progress notes in the chart and discuss daily progress of their patients on rounds with the rest of the nephrology team lead by the attending nephrologist. It is expected that the resident complete their progress notes prior to rounds and, in certain instances, the residents may ask to complete a discharge summary when their patients are discharged from the service.

On the consult service, it is expected that resident sees an average of 2-4 new cases per day, and follow up on average of 3-5 cases/day. The resident will initially perform all new consults. The patient is subsequently seen jointly by the resident/student and the attending. Consultation note prepared by the resident will not be placed in the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of laboratory trends. In this regard, residents are expected to learn master microscopic examination of urine sediment in evaluating hospitalized medical patient presenting with acute kidney injury.

In the outpatient nephrology clinic, the resident is expected to work with preceptor on a one to one basis seeing and evaluating patients presenting with a chronic kidney disease/End-stage renal disease, including management of resistant hypertension, reduction of proteinuria, adequately glycemic control, management of bone and mineral disease, mitigating risk factors for cardiovascular disease, management of anemia in patients with CKD, and preventing electrolytes and acid-base disturbances in this patient population.

In the dialysis clinic, the resident is expected to learn basic principles and indications for hemodialysis, peritoneal dialysis, ultrafiltration and hemoperfusion. This can be done also in the inpatient service

Sample Daily Schedule on Nephrology Inpatient Consult Service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 12:00 am: Resident follows up on old patients and work up new consults.
12:30 pm to 2:00 pm: Team gather and round on all new and old patients.

Sample Daily Schedule on Nephrology Inpatient Service:
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Pre-Rounds on patients
9:00 am – Noon: Teaching rounds with rest of the team and attending nephrologist.
12:30 pm -2:00 pm: Teaching/Didactics/Follow up on patients.

Sample Daily Schedule on Nephrology outpatient Service
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory nephrology clinic along with supervising attending nephrologist.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
There is no assigned call or weekend coverage on Nephrology rotation. Hence, the Internal Medicine resident must take general medicine call, as assigned by the internal medicine program director.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7)Professional.

17. **Medical Expert:**

- **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

1) **Describe the pathophysiology, diagnosis, and management of: acute kidney injury, proteinuria, hematuria, primary and secondary hypertension, fluid and electrolyte and acid-base disorders, poisonings.**
2) **Describe indications for hemodialysis, peritoneal dialysis, ultrafiltration, hemoperfusion, renal transplantation.**
3) **Describe the pharmacology of commonly used medications in patients with impaired renal function and immunosuppressive agents.**

4) **Take an appropriate and thorough history, perform a comprehensive physical examination, and formulate an appropriate differential diagnosis and management strategy related to renal diseases.**
5) **Perform and interpret a microscopic urinalysis, be aware of the indications and limitations of imaging studies in urological disease, be aware of the indications for and interpretation of renal biopsy.**
6) **Manage complications of chronic kidney disease such as hypertension, anemia, mineral metabolism abnormalities, electrolyte disturbances and volume overload.**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

26) **Meet competency stated for R1-R2 residents.**
27) **The resident will demonstrate the ability to describe the etiology, epidemiology, pathophysiology, clinical features, relevant laboratory knowledge, and the therapeutic options for major kidney related diseases, including:**

i. **Fluid and electrolyte abnormalities**
ii. **Acid-base disturbances**
iii. **Acute renal failure and oliguria**
iv. **Hematuria**
v. **Proteinuria**
vi. **Complications of chronic renal disease**
vii. **Renal replacement therapy and transplantation**
viii. **Nephritic and Nephrotic syndromes**
ix. **Glomerulonephritis**
x. **Acute tubular necrosis**
xi. **Interstitial nephritis**
xii. **Renovascular hypertension**
xiii. **Renal tubular acidosis**
xiv. **Renal calculi**
xv. **Renal complications of diabetes, hypertension and rhabdomyolysis**

28) **The resident will demonstrate competency in managing complications of chronic kidney disease such as hypertension, anemia, mineral metabolism abnormalities, electrolyte disturbances and volume overload.**
29) **The resident demonstrates competency in performing placement of central venous catheters as appropriate to level of training.**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

1) **Ability to undertake a critical appraisal of the literature**
2) **Synthesize data to derive the most likely diagnosis (es) and differential diagnosis (es).**
3) **Independently choose appropriate management and therapeutic plan.**
4) **Demonstrate effective consultation skills in the provision of timely well-documented assessments and recommendations in written and/or verbal forms.**

5) **Demonstrate the attitudes and skills necessary to collaborate with other health care professionals necessary to the care of the patient.**
6) **Access, retrieve, critically evaluate, and apply information from all sources in maintaining the highest standard of patient evaluation, care, and management.**
7) **Demonstrate insight into his/her own limitations of expertise by self-assessment**

2. Communicator:

By the end of this rotation, the resident at all levels will be able to perform the following:

10) **Establish a therapeutic relationship with patients and their families, emphasizing active listening, understanding, trust, empathy, and confidentiality.**
11) **Communicate in an effective manner, verbally and in written form, with other members of the health care team.**
12) **Develop a patient-centered approach to healthcare. This approach will encourage discussion, promote patients' participation in decisions (such as choice of renal replacement therapy), and acknowledge the importance of factors, which influence the patient-physician relationship such as age, gender, ethnicity, cultural and socioeconomic background, and spiritual values.**
13) **Discuss appropriate information with the patient, his/her family, and other healthcare providers (hospitalists, intensivists, other physician requesting consultation, nursing staff, dialysis technician, and other health professionals) to facilitate the optimal management plan for the care of the patient.**

3. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

3) **Recognize that high quality nephrology care is best provided by a team approach**
4) **Work effectively in an interdisciplinary team, demonstrating an understanding and respecting the roles of other health disciplines.**
5) **Appropriately utilize other healthcare organizations and allied healthcare professionals in the efficient management of ambulatory nephrology problems and delivery of nephrology services in an out-patient environment.**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

29) **Residents will demonstrate timeliness in completing assignments & performing consultations (which should typically be completed and reviewed on the day received), and progress notes.**
30) **Resident will demonstrate the ability to prioritize and perform necessary follow-up.**
31) **Resident will demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development.**
32) **Resident will demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.**

33) **Resident will demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.**
34) **Resident will demonstrate the use of cost/benefit ratios of diagnostic and interventions for kidney disorders as well as cost containment, efficacy, and efficiency as they relate to decision making and quality assurance.**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

3) **Understand and utilize the multidisciplinary resources necessary to care optimally for the patients.**
4) **Use evidence-based, cost-conscious strategies in the care of the patients.**
5) **Understanding when to ask for help and advice from supervising physicians.**
6) **Learning by participation in teaching conferences, and other educational activities.**
7) **Effective collaboration with other members of the health care team**
8) **Consideration of the cost-effectiveness of diagnostic and treatment strategies.**
9) **Advocate on behalf of patients and parents for improved and timely access to specialist, and allied health care, necessary surgery, beneficial medications and therapies, and community based support services.**

6. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

4) **Analyze practice experience and perform practice-based improvement activities using a systematic methodology.**
5) **Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.**
6) **Obtain and use information about their own population of patients and the larger population from which their patients are drawn.**
7) **Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness.**
8) **Use information technology to manage information, access on-line medical information; and support their own education.**
9) **Facilitate the learning of students and other health care professionals.**
10) **Use information technology to support patient care decisions and patient education**

7. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

1) **Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development.**

2) **Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance.**
3) **Demonstrate recognition of personal limitations of professional competence and demonstrate a willingness to call upon others with special expertise.**
4) **Appropriate attendance and punctuality at clinical rounds, and clinics**
5) **Be aware of the ethical and legal aspects of patient care**
6) **Strive for a balance between personal and professional roles and responsibilities.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent the majority of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR NEUROLOGY ROTATION

Introduction:

This two-month rotation consists of rotations involving inpatient neurology unit, inpatient consult service, and weekly general neurology outpatient clinic. Residents are scheduled to spend equal amount of time rotating across all three services. The resident is expected to make an oral presentation on a clinical case and /or a relevant respiratory topic during weekly neurology rounds on at least one occasion during their rotation.

For neurology rotation, residents will be assigned to Mubarak Al-Kabeer Hospital, Al-Amiri Hospital, Al-Adan Hospital, Jahra Hospital, or Farwanieyha Hospital.

Rotation Structure and Schedule:

On the inpatient neurology unit, residents are expected to round on an average of 2-4 patients per day. At the discretion of the attending supervision physician, the resident is expected to admit patients presenting with neurologic disorders, including strokes, CNS diseases including meningitis and encephalitis, altered mental status, Migraines and other causes of headaches, Movement disorders, seizure disorders and status epilepticus, dementia and delirium, Multiple sclerosis and other demyelinating diseases, Myasthenia gravis, Amyotrophic lateral sclerosis (ALS) and other motor neuron diseases. The resident is expected to pre-round on their patients daily, write progress notes in the chart and discuss daily progress of their patients on rounds with the rest of the neurology team lead by the consultant neurologist. It is expected that the resident completes their progress notes prior to rounds and, in certain instances, the residents may ask to complete a discharge summary when their patients are discharged from the service.

On the consult service, it is expected that resident sees an average of 2-4 new cases per day, and follow up on average of 3-5 cases/day. The resident will initially perform all new consults. The patient is subsequently seen jointly by the rest of neurology team. Consultation note prepared by the resident will not be placed in the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of laboratory trends and imaging data.

In the outpatient neurology clinic, the resident is expected to work with consultant neurologist on a one to one basis evaluating and managing patients presenting with common neurological disorders.

Sample Daily Schedule on neurology Consult Service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 12:00 am: Resident follows up on old patients and work up new consults.
12:30 pm to 2:00 pm: Team gather and round on all new and old patients.

Sample Daily Schedule on Inpatient neurology service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Pre-Rounds on patients

9:00 am – Noon: Teaching rounds with rest of the team and consultant neurologist.
12:30 pm -2:00 pm: Teaching/Didactics/Follow up on patients.

Sample Daily Schedule on Outpatient Neurology Clinic:
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory neurology clinic along with supervising attending neurologist.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
There is no assigned call or weekend coverage on neurology rotation. Hence, the Internal Medicine resident must take general medicine call, as assigned by the internal medicine program director.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

18. **Medical Expert:**

- **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

36) **Evaluate altered mental status**
37) **Residents should demonstrate ability to apply clinical skills and use the physical examination to localize neurologic lesions.**
38) **Residents should demonstrate understanding of neuroanatomy sufficient to localize neurologic lesions.**
39) **Resident must be able to complete a comprehensive history and must develop the ability to perform a competent neurological examination, including:**
    a. **Mental status: language, memory, attention/concentration, affect, intellect**
    b. **Cranial nerves**
    c. **Motor exam including details on bulk, strength, and tone**
    d. **Reflex exam including stretch and pathological reflexes**
    e. **Detailed sensory examination**
    f. **Coordination and gait and balance**
40) **Order appropriate diagnostic testing for neurologic disease**
41) **Prescribe anti-platelet therapy for vascular disease**
42) **Prescribe medication for seizure disorder**
43) **Recognize acute stroke and activate stroke team**
44) **Develop technical skills in performing Lumbar Puncture**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

30) Meet competency stated for R1-R2 residents.

31) The resident will demonstrate ability to develop a rational clinical approach to solving basic clinical neurological problems including:

a. Stupor and coma
b. Seizures
c. Tremor
d. Weakness
e. Dizziness, syncope
f. Vertigo
g. Sensation changes
h. Dementia and delirium
i. Paralysis
j. Headaches
k. Changes in vision or other sensory organs

32) The resident will demonstrate satisfactory skills in clinical documentation of neurologic complaints and general evaluations in the medical record.

33) The resident must reflect an understanding of the differential diagnosis and natural history of common neurological issues.

34) The residents will demonstrate understanding of the indications, basic techniques, and basic interpretation of the following tests a. lumbar puncture and CSF analysis b. Carotid Dopplers c. Neuro-imaging including CT scans MRI scans PET scans d. EMG and nerve conduction studies e. EEG and evoked potential studies f. Metabolic testing, testing for autoimmune neurological diseases

35) Develop an understanding of the indications and contraindications for the administration of thrombolysis (recombinant tissue plasminogen activator rtPA)

36) Understand the pathophysiological mechanisms of acute stroke (cardioembolic, artery-to-artery, small vessel ischemic disease)

37) Residents will reflect satisfactory knowledge of the use of specific neurological drugs.

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

13) Meet competency stated for R3-R4 residents.

14) The residents will understand the pathophysiology, clinical presentations, and achieve competence in the diagnosis and treatment of the following diseases:

a. Stroke/TIA
b. Meningitis- both acute and chronic
c. Alzheimer's disease and other causes of dementia
d. Alcohol and drug related neurological disorders
e. Seizure disorder
f. Parkinsonism and other movement disorders
g. MS and other demyelinating diseases
h. Carpal tunnel and other entrapment syndromes
i. CNS tumors and malignancy
j. Peripheral neuropathy and radiculopathies

k. Migraines and other causes of headaches
l. Guillian-Barre Syndrome
m. ALS and other motor neuron diseases
n. Peripheral neuropathy
o. Myopathy
p. Muscular dystrophy
q. Myasthenia gravis and other dystonias

2. Communicator:
By the end of this rotation, the resident at all levels will be able to perform the following:

14) Residents will demonstrate ability to communicate effectively and demonstrate caring, compassionate, and respectful behavior
15) Communicate in an effective manner, verbally and in written form, with other members of the health care team.
16) Present information concisely and clearly both verbally and in writing on patients.

19. Collaborator:
By the end of this rotation, the resident at all levels will be able to perform the following:

10) Work effectively in an interdisciplinary team, demonstrating an understanding and respecting the roles of other health disciplines, including physical therapist, occupational therapist, speech therapist, pharmacist, nutritionist, and nursing staff.
11) Appropriately utilize healthcare organizations and allied healthcare professionals to assist in patient care and returning patients safely to the community.

4. Leader:
By the end of this rotation, the resident at all levels will be able to perform the following:

35) Residents must demonstrate an awareness of the larger context and system of health care and the ability to effectively call on system resources to provide optimal care of patients
36) Residents will demonstrate timeliness in completing assignments & performing consultations (which should typically be completed and reviewed on the day received), and progress notes.
37) Residents will demonstrate self-initiative in the use of information technology to access and retrieve materials for self- education and demonstrate skills of critically appraising medical literature, and apply evidence to the care of patients.

5. Health Advocate:
By the end of this rotation, the resident at all levels will be able to perform the following:

19) Residents must demonstrate an awareness of the larger context and system of health care and the ability to effectively call on system resources to provide optimal care of patients

20) Residents will practice cost-effective health care and resource allocation while advocating for quality.

6. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

5) **Residents will demonstrate self-initiative in the use of information technology to access and retrieve materials for self- education and demonstrate skills of critically appraising medical literature, and apply evidence to the care of patients**
6) **Facilitate the learning of students and other health care professionals.**

7. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

20) **Develop an awareness of the ethical issues in the management of patients with catastrophic neurological disease or chronic incurable illnesses.**
21) **Deliver exemplary patient care commensurate with level of training, demonstrating appropriate personal and interpersonal professional behaviors.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR OBSTETRIC-MEDICINE

This one-or-two-month long elective rotation is designed for upper level R4/R5 resident in Obstetric-Medicine. Internists will be called upon to co manage pregnant women with acute or chronic medical issues. Hence, it is imperative that internal medicine residents learn to manage acute common problems in pregnancy or in the immediate postpartum.

At the end of the rotation, the resident is expected to:

- **Understand the normal physiological changes & adaptations in pregnancy.**
- **Understand the effect of pregnancy on the disease & vice versa.**
- **Understand the normal blood sugar & insulin changes/ values in pregnancy & ability to diagnose & manage gestational diabetes.**
- **Be able to recognize normal BP in pregnancy & be able to identify distinct types of hypertensive disorders in pregnancy**
- **Know the safety of drugs in pregnancy & lactations.**
- **Know the safety & necessity of radiological investigation during pregnancy.**
- **Identify diseases specific to pregnancy & their proper management.**
- **Be exposed to other medical conditions like rheumatology, endocrine, cardiac or hematological diseases in pregnancy.**

GOALS AND OBJECTIVES FOR ONCOLOGY ROTATION

Introduction:
This two-month rotation consists of rotations involving outpatient oncology clinic and covering oncological emergencies/urgent issues at Kuwait Cancer Control Center Emergency Department. The resident is expected to make an oral presentation on a clinical case and /or a relevant oncology topic during weekly morning report on at least one occasion during their rotation.

For oncology rotation, residents will be assigned to Kuwait Cancer Control Center (KCCC).

Rotation Structure and Schedule:
In the outpatient oncology clinic, the resident is expected to work with consultant oncologist on a one to one basis evaluating and managing patients presenting with common oncological problems and diseases including: Common solid tumors including breast, colorectal, lung, pancreatic, prostate, testicular and ovarian cancers; Leukemias and lymphomas; Myeloma and related disorders.

When covering the Emergency Department, the resident is expected to exclusively mange KCCC patients presenting with acute issues, ranging from chemotherapy complications, neutropenic fever, fatigue and other common medical problems encountered in the oncology patient.

Sample Daily Schedule on Outpatient Hematology Clinic:
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory Oncology clinic along with supervising attending Oncologist.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
Resident will cover Emergency Department at KCCC for oncologic emergencies. Residents will cover emergency room from 2:00 pm until 10:00 pm on an average 4 calls per month. At all time, residents will have senior level physician physically present in the Emergency Department, and consultant available by phone.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

20. **Medical Expert:**

- **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

45) **Understands the epidemiology, pathophysiology, and treatment of common malignancies especially breast, lung, prostate, and colon cancer.**
46) **Residents will gather a detailed history with complete description of the symptoms.**

47) **Resident will be able to perform a complete oncology exam, especially breast, liver, spleen exam, lymphatic system, and neurological examination as it pertains to diagnosis of spinal cord compression and brain metastases**
48) **Residents are expected to know the indications, contraindications and complications of bone marrow biopsy and interpretations of blood smears.**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

38) **Meet competency stated for R1-R2 residents.**
39) **Recognize, anticipate, and manage general medical problems experienced by cancer patients appropriately**
40) **Recognize and manage common oncologic emergencies, including but not limited to malignant spinal cord compression, tumor lysis syndrome, febrile neutropenia, cancer-related pulmonary complications.**
41) **Resident will become familiar with systemic effects of cancer**
42) **Resident will become familiar with the impact of cancer on other major organ systems.**
43) **Resident will be familiar with side effects of most common chemotherapy drugs**

- **R5 residents:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

15) **Meet competency stated for R3-R4 residents.**
16) **Performs well in ambiguous situation.**
17) **Spends time appropriately to the complexity of the problem.**
18) **Elicits subtle findings on physical examination.**
19) **Resident will demonstrate developing competence in management of chemo-therapy side effects and counseling cancer patients.**

21. **Communicator:**

By the end of this rotation, the resident at all levels will be able to perform the following:

17) **Demonstrate ability to interact with other physicians, nursing, and clinic staff, the patients and their families in a professional, respectful and effective manner.**
18) **Keep legible, complete, and timely medical records and dictations.**
19) **Identify the questions and wishes of the consulting physician.**
20) **Demonstrate competence in oral presentation.**
21) **Demonstrate the ability to initiate goals of care discussion and communicate bad news in a caring and appropriate manner**
22) **Able to deal with challenging patients and families.**
23) **Resident addresses end of life decisions with faculty input**

3. **Collaborator:**

By the end of this rotation, the resident at all levels will be able to perform the following:

12) **Effectively coordinate care with other health care professionals in the multimodality setting of cancer treatment.**

13) **Work effectively in an interdisciplinary team, showing an understanding and respecting the roles of other health disciplines (social workers, pharmacists, nursing staff, nutritionists, case managers).**
14) **Participate in multidisciplinary team activities including patient oriented and educational rounds**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

38) **Seek formative feedback, and use it to improve performance.**
39) **Demonstrate self-motivation to acquire knowledge.**
40) **Interact respectfully with all healthcare team members**
41) **Maintain patient confidentiality.**
42) **critically appraising medical literature, and apply evidence to the care of patients.**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

21) **Demonstrate the incorporation of cost-awareness principles into standard clinical judgments and decision making.**
22) **Effectively coordinate care with other health care professionals in the multimodality setting of cancer treatment.**
23) **Recognizing the balance of cancer treatment and quality of life of cancer patients.**
24) **Demonstrate understanding of the circumstances under which the general internist should consult others in the care of patients with oncological disorders.**
25) **Serve as a consultant to other services with proper faculty input.**

6. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

10) **Appraise and assimilate evidence from scientific studies related to their patients' health problems**
11) **Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness**
12) **Use information technology to manage information, access on-line medical information, and support their own education**
13) **Presentation of a topic at Oncology Rounds during the rotation**

7. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

22) **Demonstrates respect, compassion, and integrity to patients, families, and other health professionals.**
23) **Demonstrate accountability to patients, society and the profession; and a commitment to excellence and on-going professional development.**
24) **Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.**
25) **Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

GOALS AND OBJECTIVES FOR RESPIRATORY ROTATION

Introduction:
This two-month rotation consists of rotations involving inpatient pulmonary unit, inpatient consult service, and weekly pulmonary outpatient clinic. Residents are scheduled to spend equal amount of time rotating on inpatient pulmonary unit and inpatient pulmonary consult service. The resident is expected to make an oral presentation on a clinical case and /or a relevant respiratory topic during weekly Respiratory rounds on at least one occasion during their rotation.

For pulmonary rotation, residents will be assigned to Mubarak Al-Kabeer Hospital, Al-Amiri Hospital, Al-Adan Hospital, Jahra Hospital or Farwanieyha Hospital.

Rotation Structure and Schedule:
On the inpatient pulmonary unit, residents are expected to round on an average 2-4 patients per day. At the discretion of the attending supervision physician, the resident is expected to admit patients presenting with pulmonary disease, including obstructive pulmonary disease, restrictive pulmonary disease, infectious lung diseases, and thromboembolic pulmonary disease. The resident is expected to pre-round on their patients daily, write progress notes in the chart and discuss daily progress of their patients on rounds with the rest of the pulmonary team lead by the consultant pulmonologist. It is expected that the resident completes their progress notes prior to rounds and, in certain instances, the residents may ask to complete a discharge summary when their patients are discharged from the service.

On the consult service, it is expected that resident sees an average of 2-4 new cases per day, and follow up on an average of 3-5 cases/day. The resident will initially perform all new consults. The patient is subsequently seen jointly by the rest of pulmonary team. Consultation note prepared by the resident will not be placed in the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of laboratory trends and imaging data. Residents are expected to learn to formulate appropriate management plans for patients with pulmonary diseases. The resident will also be called upon to provide accurate pre-operative pulmonary risk assessment for patients undergoing non-cardiac surgeries.

In the outpatient pulmonary clinic, the resident is expected to work with consultant pulmonologist on a one to one basis evaluating and managing patients presenting with common pulmonary problems and diseases including: Cough; Shortness of breath; Hypoxemia; Airflow obstruction (including optimal use of pharmacologic agents); Bronchiectasis; Pulmonary nodules and lung cancer; Acute and chronic pneumonia; Non-tuberculous mycobacterial infections; Interstitial lung disease (e.g., sarcoidosis); and Obstructive Sleep Apnea.

Sample Daily Schedule on pulmonary Consult Service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 12:00 am: Resident follows up on old patients and work up new consults.
12:30 pm to 2:00 pm: Team gather and round on all new and old patients.

Sample Daily Schedule on Inpatient pulmonary service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Pre-Rounds on patients
9:00 am – Noon: Teaching rounds with rest of the team and consultant pulmonologist.
12:30 pm -2:00 pm: Teaching/Didactics/Follow up on patients.

Sample Daily Schedule on Outpatient Pulmonary Clinic:
7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 1:00 pm: See patients in ambulatory pulmonary clinic along with supervising attending pulmonologist.
1:00 pm to 2:00 pm: Didactic teaching session.

On-call Schedule:
There is no assigned call or weekend coverage on pulmonary rotation. Hence, the Internal Medicine resident must take general medicine call, as assigned by the internal medicine program director.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7) Professional.

22. **Medical Expert:**

- **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

49) **The resident must be able to complete a comprehensive pulmonary consultation including proper patient identification, chief complaint, history of present illness, past medical history, review of systems, personal and social history, and complete physical examination with focus on the pulmonary examination. An assessment and diagnostic/treatment plan should be attempted.**
50) **The resident must be able to interpret pulmonary function tests, pleural fluid analysis, arterial blood gases, and acid base abnormalities. The resident must be able to read chest x-rays and understand the general diagnostic features of ventilation/perfusion scans and chest CT. Residents should be able to understand and recognize various disorders of breathing that occur during sleep, as well as the indications for referral for a sleep study.**
51) **The resident must be able to evaluate and manage obstructive pulmonary disease, restrictive pulmonary disease, infectious lung diseases, lung cancer, acute and chronic respiratory failure, sleep disorders, and thromboembolic pulmonary disease.**
52) **The resident will recognize crackles, rhonchi, wheezing, bronchial breathing, stridor, friction rub, alterations in the intensity of breath sounds, and normal and abnormal diaphragmatic motion. In addition, the resident should be able to identify disorders of neuromuscular**

respiratory control including: Kussmaul breathing, Cheyne-Stokes ventilation, use of accessory respiratory muscles of respiration, and paradoxical abdominal/thoracic muscle function.

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

44) **Meet competency stated for R1-R2 residents.**
45) **The resident will demonstrate the ability to describe the etiology, epidemiology, pathophysiology, clinical features, relevant laboratory knowledge, and the therapeutic options for major pulmonary disease, including:**

I. **Acute and chronic dyspnea**
II. **Chronic cough**
III. **Wheeze**
IV. **Hemoptysis**
V. **Interpretation of Pulmonary Function Testing**
VI. **Pneumonia**
VII. **Chronic obstructive lung disease**
VIII. **Bronchial asthma**
IX. **Interstitial lung disease**
X. **Pulmonary embolism**
XI. **Pneumothorax**
XII. **Pleural effusion**
XIII. **Sarcoidosis**
XIV. **Connective tissue and granulomatous diseases**
XV. **Occupational lung diseases**
XVI. **Pulmonary embolism**
XVII. **Pulmonary hypertension**
XVIII. **Lung cancer: primary and metastatic including paraneoplastic syndromes**

46) **Residents demonstrate understanding id the action and pharmacology of common pulmonary medications including inhaled medications, steroids, other anti-inflammatory agents, and ancillary pharmacological therapies.**
47) **The resident will understand the use and indications for pulmonary rehabilitation, postural drainage, incentive spirometry and CPAP therapy. In addition, the resident will demonstrate understanding of the major modalities of oxygen supplementation and ventilation techniques, including: nasal canula, venture, aerosol, and non-rebreathing masks, nasal and facial CPAP and other commonly used modes of non-invasive-positive pressure ventilation.**
48) **Understand the indications and contra-indications for respiratory procedures (thoracentesis, chest tube insertion, pleurodesis, bronchoscopy and biopsy, open lung biopsy).**
49) **Develop the following technical skills**
    I. **Diagnostic and therapeutic thoracentesis**
    II. **TB skin tests**
    III. **Management of chest tubes & exposure to chest tube placement**
    IV. **Arterial puncture**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

20) **Meet competency stated for R3-R4 residents.**
21) **Demonstrate diagnostic and therapeutic skills for the assessment and management of respiratory emergencies including upper airway obstruction, acute severe asthma, tension pneumothorax, massive hemoptysis, and respiratory arrest.**

2. Communicator:

By the end of this rotation, the resident at all levels will be able to perform the following:

24) **Establish a therapeutic relationship with patients and their families, emphasizing active listening, understanding, trust, empathy, and confidentiality.**
25) **Communicate in an effective manner, verbally and in written form, with other members of the health care team. Residents are expected to act as a constructive and proactive member of the pulmonary rounding team.**
26) **The resident will develop and demonstrate skill communicating with patients who severe and life threatening pulmonary conditions and communicate effectively with the families of very ill patients.**
27) **Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of patients.**
28) **Present information concisely and clearly both verbally and in writing on patients.**

23. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

15) **Work effectively with, and enhance the interdisciplinary team involved in the delivery of medical care to respiratory patients.**
16) **Work effectively in an interdisciplinary team, demonstrating an understanding and respecting the roles of other health disciplines.**
17) **Residents will utilize ancillary services such as respiratory therapy to facilitate a multidisciplinary approach to the care of patient with pulmonary disease.**

4. Leader:

By the end of this rotation, the resident at all levels will be able to perform the following:

43) **Residents will demonstrate timeliness in completing assignments & performing consultations (which should typically be completed and reviewed on the day received), and progress notes.**
44) **Resident will demonstrate the ability to prioritize and perform necessary follow-up.**
45) **Resident will demonstrate a commitment to ethical principles pertaining to confidentiality of patient information and informed consent.**

46) **Residents will demonstrate self-initiative in the use of information technology to access and retrieve materials for self- education regarding pulmonary cases and demonstrate skills of critically appraising medical literature, and apply evidence to the care of patients.**

5. Health Advocate:

By the end of this rotation, the resident at all levels will be able to perform the following:

26) **Residents are expected appropriately access different facets of the health care system necessary for the care of their patients. This includes but not limited to PT/OT services and discharge planning services in the inpatient setting, and proper and effective engagement of system resources in the outpatient care environment.**
27) **Residents are expected to utilize health care resources effectively and efficiently, demonstrating an awareness of the most cost-effective way of managing patients.**

6. Scholar:

By the end of this rotation, the resident at all levels will be able to perform the following:

14) **Residents will demonstrate self-initiative in the use of information technology to access and retrieve materials for self- education regarding pulmonary cases and demonstrate skills of critically appraising medical literature, and apply evidence to the care of patients.**
15) **Facilitate the learning of students and other health care professionals.**

7. Professional:

By the end of this rotation, the resident at all levels will be able to perform the following:

26) **Throughout the rotation, residents are expected to exhibit reliability in their clinical duties, as well as integrity and respect in their interactions with patients, their family members, colleagues, and all other members of the healthcare team.**
27) **Residents will be able to demonstrate appropriate consultative principles of communication and responsiveness to professional consultative requests.**
28) **Demonstrate appropriate professional attitudes with respect to attendance and punctuality.**

Evaluations:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent much of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.

Goals and Objectives Rheumatology Rotation

Introduction:
This two month rotation consists of combination ambulatory rheumatology clinic, inpatient consults. At the discretion of the attending (supervising) rheumatologist residents are scheduled to spend equal amount of time rotating between outpatient clinic and inpatient consult service. In the outpatient clinic, they will see both new patient referrals and follow-up patients. All patients are presented to the Attending and a management plan is discussed. They are encouraged to follow patients they have seen in clinic whenever possible. Inpatient consults are presented and reviewed with attending. Inpatient consults are followed daily until discharge or the team signs off. The resident is expected to attend the monthly Rheumatology grand rounds, which are part of general medicine morning report, on Tuesday morning and is expected to present at these rounds on at least one occasion.

For Rheumatology rotations, residents may be assigned at Mubarak Al-Kabeer Hospital, Al-Amiri Hospital, or Al-Adan Hospital.

Rotation Structure and Schedule:
On the consult service, it is expected that resident sees an average of 2 new cases per day, and follow up on an average of 5 cases/day. Residents are not expected to work on weekends or take after hour calls on the Rheumatology rotation.

The resident will initially perform all new consults; this will usually require 1 hour per consult, including approximately 20-30 minutes of reading time on a topic pertinent to the consult. The patient is subsequently seen jointly by the resident/student and the attending. Consultations will not be placed on the chart until signed by the attending. Emphasis is placed upon a pertinent history and physical with review of laboratory/autoimmune markers findings and radiographic studies. This information is used to answer a question (if stated in the consult request) or to formulate a differential diagnosis which then becomes a starting point for teaching/discussing evaluation and management points of the current and similar clinical situations.

In the Rheumatology ambulatory clinic, the resident is expected to work with preceptor on a one to one basis seeing and evaluating patients.

Sample Daily Schedule On Inpatient Consult Service:

7:30 am to 8:00 am: Resident attends morning report. Residents must maintain 70% mandatory attendance.
8:00 am to 9:00 am: Didactic lectures.
9:00 am to 12:30 pm: Resident follows up on old patients and work up new consults.
12:30 pm to 2:00 pm: Team gather and round on all new and old patients.

On-call Schedule:
There is no assigned call or weekend coverage on Rheumatology rotation. Hence, the Internal Medicine resident must take general medicine call, as assigned by the internal medicine program director.

Rheumatology Rotation Curriculum

Teaching Rounds:
Each new consult/patient encounter seen by the resident will form the basis for teaching rounds. The new consult is presented by the resident to the entire Rheumatology consult team. The team will then see the patient as a group and review relevant history and/or obtain additional history from the patient and patient record. Pertinent physical findings (positive and negative) will be reviewed at the bedside. This component will be followed by formulation of a differential diagnosis and the development of diagnostic and therapeutic plans. Additional discussion may include pathophysiology, epidemiology, natural history and complications of the disease process in question. In the event that there are no new consults on a given day, the resident/student is assigned to see patients for follow-up visits with ensuing presentation, review and discussion at the bedside.

Additional Instruction:
The resident are expected to expected to present "interesting cases" from the consult service at the morning medicine conference in great detail, and will be asked to review the literature and discuss certain aspects of the case.

Supervision:
All cases are supervised by the attending physician board certified Rheumatologist.

Educational Resources to be used and Reading Lists:
A reading list compiled from current journal articles will be provided at the beginning of each rotation. Residents are referred to standard textbook of Internal Medicine (i.e. Harrison's Principles of Internal Medicine) along with board review material for quick references (MKSAP rheumatology or Med study Rheumatology) and are expected to independently research topics related to patients that they have encountered during the rotation. Residents are encouraged to submit valuable articles they encounter for inclusion in the reading list. Residents are highly encouraged to write up cases encountered on rotation. Publication of cases encountered on rotation is highly encouraged for those interested in pursuing fellowships in Rheumatology.

Objectives and Core Competency:
Residents are evaluated monthly based on CAN med core competency: (1) Medical expert; (2) Communicator; (3) Collaborator; (4) Leader; (5) Health advocate; (6) Scholar; and (7)Professional.

24. **Medical Expert:**

- **R1-R2 residents:**

By the end of the rotation, the resident will be able to:

5. **Obtain a complete and accurate Rheumatologic History in patients with**

h. **Arthritis**
i. **Multi-system inflammatory illness**
j. **Other MSK complaint**
k. **Reduced bone density and osteoporosis**

6. **Conduct a detailed MSK examination including a screening and detailed examination of the joints, including measure of arthritic disease activity; measure of arthritic damage and deformity; detection of Extra-articular Complications; functional Assessment; pain amplification; assessment of spinal disease; and assessment of Regional Pain Syndrome**
7. **Formulate an appropriate differential diagnosis and management strategy based on the above**
8. **Assess functional status and disability in Rheumatology**
9. **Describe the common signs and symptoms of the following rheumatic conditions: Infectious diseases involving the musculoskeletal system (MSK), Diffuse inflammatory connective tissue disorders (including lupus, scleroderma, inflammatory arthritis, vasculitis, myositis, and Sjogren's), Crystal related arthritis, Degenerative diseases of the MSK system (including osteoarthritis), Metabolic bone disease, Regional pain syndromes and Fibromyalgia.**
10. **Develop a basic knowledge about laboratory and radiological investigations used in the rheumatic diseases.**
11. **Identify the most current pharmacological and non-pharmacological therapeutic interventions used in the treatment of rheumatic diseases and the side effects and risks of therapy**
12. **Perform joint aspiration and therapeutic injection.**

- **R3-R4 residents:**

By the end of the rotation, the resident will be able to:

9. **Meet competency stated for R1-R2 residents.**
10. **The resident will demonstrate the ability to describe the etiology, epidemiology, pathophysiology, clinical features, relevant laboratory knowledge, and the therapeutic options for major Rheumatological disease entities. This will include Rheumatoid Arthritis; Juvenile Chronic Arthritis (JCA); Juvenile Rheumatoid Arthritis (JRA); Juvenile Idiopathic Arthropathy (JIA); Osteoarthritis; Osteoporosis and metabolic bone disease; Systemic Lupus Erythematosus (SLE) and related syndromes; Sjogren's Syndrome; Systemic Sclerosis and related syndrome(s); HLA-B27 related arthropathies; Fibromyalgia; Chronic Fatigue Syndrome; Crystal Arthritis; Infectious Arthritis; Infection-related arthropathies; Myositis & myopathy; Fasciitis; Vasculitidies; Antiphospholipid Antibody Syndromes; Intermittent Arthritis Syndromes; Extra-articular Manifestations of Rheumatic Disease; Systemic Disorders with Rheumatological Manifestations; Other bone disorders — Paget's, Diffuse Idiopathic Skeletal Hyperostosis (DISH), hypertrophic osteopathy, renal bone disease, reflex sympathetic dystrophy, dysplasia; and Physical musculoskeletal syndromes.**
11. **Demonstrate in-depth understanding of laboratory tests, and diagnostic imaging techniques in diagnosis and assessment of rheumatic diseases**
12. **Demonstrate understanding of indications/contraindications, administration, monitoring and complications of common Disease-Modifying Antirheumatic Drugs (DMARD) and common biologic Agents used in treatment of Rheumatological diseases.**

- **R5 resident:**

By the end of the rotation, the resident will be able to develop proficiency and competency in the following areas:

17. **Ability to undertake a critical appraisal of the literature**
18. **Synthesize data to derive the most likely diagnosis (es) and differential diagnosis (es).**

19. **Apply knowledge and expertise to performance of technical skills relevant to Rheumatology including joint and soft tissue aspiration and injections and synovial fluid analysis with minimal supervision.**
20. **Independently choose appropriate management and therapeutic plan.**
21. **Demonstrate effective consultation skills in the provision of timely well-documented assessments and recommendations in written and/or verbal forms.**
22. **Demonstrate the attitudes and skills necessary to collaborate with other health care professionals necessary to the care of the patient.**
23. **Access, retrieve, critically evaluate, and apply information from all sources in maintaining the highest standard of patient evaluation, care, and management.**
24. **Demonstrate medical expertise in situations other than those involving direct patient care (e.g. medical presentations, patient and referring physician education, and medico-legal opinions).**
25. **Demonstrate insight into his/her own limitations of expertise by self-assessment**

2. Communicator:

By the end of this rotation, the resident at all levels will be able to perform the following:

13. **Establish a therapeutic relationship with patients and their families, emphasizing active listening, understanding, trust, empathy, and confidentiality.**
14. **Demonstrate an appreciation of the patients' perception of health, concerns, and expectations and the impact of the rheumatologic disease on the patient and the family while considering factors such as the patient's age, gender, cultural, and socioeconomic background and spiritual values.**
15. **Demonstrate ability to provide appropriate support and counsel to a patient and family with chronic rheumatologic, connective tissue or musculoskeletal disorders.**
16. **Discuss appropriate information with the patient, his/her family, and other healthcare providers (hospitalists, intensivists, other physician requesting consultation, nursing staff, and other health professionals) to facilitate the optimal management plan for the care of the patient.**
17. **Articulate in writing a sound and detailed information about the patient's history, pathogenesis of his/her infectious illness, and appropriate evidence-based treatment plan.**
18. **Communicate verbally a succinct assessment and management plan to Attending Staff and to other physicians requesting consultation.**

3. Collaborator:

By the end of this rotation, the resident at all levels will be able to perform the following:

7. **Residents will collaborate with other specialists, particularly those working in a discipline most often associated with Rheumatology such as: orthopedics, physiatry, primary care providers, hospitalists, dermatology, physical therapy and infectious diseases specialists, to optimize management of patient with rheumatological disease.**
8. **Residents will collaborate with pharmacologists to ensure appropriate DMARD and Biologic dosing and schedule is administered.**

4. Leader:
By the end of this rotation, the resident at all levels will be able to perform the following:

7. **Residents will demonstrate timeliness in completing assignments & performing consultations (which should typically be completed and reviewed on the day received), and progress notes.**
8. **Residents will demonstrate the ability to prioritize and perform necessary follow-up**
9. **Residents will demonstrate the use of cost/benefit ratios of diagnostic and interventions for rheumatologic disorders as well as cost containment, efficacy, and efficiency as they relate to decision making and quality assurance.**

5. Health Advocate:
By the end of this rotation, the resident at all levels will be able to perform the following:

7. **Residents will identify the important determinants of health affecting patients, particularly those contributing to the burden of illness and disability from chronic arthritic and connective tissue disorders, chronic musculoskeletal pain disorders and chronic metabolic bone disorders such as osteoporosis.**
8. **Advocate on behalf of patients and parents for improved and timely access to specialist, and allied health care, necessary surgery, beneficial medications and therapies, and community based support services.**

6. Scholar:
By the end of this rotation, the resident at all levels will be able to perform the following:

10. **Demonstrate evidence of teaching/educating consulting services and team members**
11. **Search and critically appraise current Rheumatological literature, and apply new knowledge based on appropriate evidence**
12. **Demonstrate effective oral presentation of case reports, journal club, or rounds with sound synthesis of pertinent information**
13. **Facilitate education of patients, housestaff, students and other professionals in formal and informal educational settings regarding rheumatology, connective tissue disease, and the burden of chronic musculoskeletal disorders.**
14. **Contribute to development of new knowledge in rheumatology and the connective tissue disorders**

7. Professional:
By the end of this rotation, the resident at all levels will be able to perform the following:

15. **Demonstrate appropriate professional behavior during interactions with other team members including, pharmacists, nurses and secretarial and clerical staff members.**
16. **Demonstrate a willingness to accept peer and supervisor reviews of professional competence.**
17. **Demonstrate recognition of personal limitations of professional competence and demonstrate a willingness to call upon others with special expertise.**
18. **Appropriate attendance and punctuality at clinical rounds, and clinics**
19. **Deliver highest quality care with integrity, honesty, and compassion**

20. **Demonstrate appropriate interpersonal and professional behavior**
21. **Practice medicine ethically consistent with the obligations of a physician**
22. **Be aware of the ethical and legal aspects of patient care**
23. **Show recognition of personal limits through appropriate consultation (with staff supervisors, other physicians, and other health professionals) and show appropriate respect for those consulted**
24. **Demonstrate empathy, professionalism and respect in discussing care management with the patient and their families.**
25. **Recognize potential conflict in patient care situations, professional relationships, and value systems, and demonstrate the ability to discuss and resolve differences of opinion. Additionally, be able to accept constructive feedback and criticism and implement appropriate advice.**
26. **Strive for a balance between personal and professional roles and responsibilities.**

<u>Evaluations</u>:

Evaluations should be done on an ongoing basis and residents should ensure they receive and provide verbal mid-rotation feedback to discuss strengths & weaknesses and ensure objectives are being met. At the end of the rotation, a written evaluation will be completed by the attending, with whom the resident spent the majority of their rotation. It is also expected that the residents will complete evaluations on all attendings with whom they have worked.