



**COLLEGE OF HEALTH SCIENCES**

# **CURRICULUM FRAMEWORK**

**INTERNAL MEDICINE RESIDENCY PROGRAM**

**Program code: 62722050**

**Applicable from the Academic year 2020 – 2021**

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## 1. GRADUATE ATTRIBUTES

The Internal Medicine Residency Program at VinUni - College of Health Sciences (CHS) complies with the regulations and requirements of the Vietnamese government. Specifically, the program design is guided by the Ministry of Health (MOH) Framework (Endorsed in 2006 by MOH, Decision: 19/2006/QĐ-BYT). Moreover, the training program is designed to international standards so that residents who complete the training at CHS are able to deliver high quality services nationally and internationally. The concept -- graded and progressive responsibility which is embedded in any residency training program in the United States (US) -- is a core tenet of residency training at CHS. Supervision in the setting of graduate medical education has the goals of assuring the provision of safe and effective care to patients during training; developing each resident's skills, knowledge and attitudes to create independent practitioners, and establishing a foundation for continued individual professional growth. The training program has been evaluated against international professional standards for residents outside of the US (ACGME-I), so that residents are equivalent to those accepted by the international health care sector. The training program at CHS is dedicated to residents' learning and the achievement of competencies by:

- Being a competency-, pedagogy- and evidence-based program<sup>1</sup>;
- Training residents to be not only an expert in their field but also an effective member of interprofessional teams that are responsive to the needs of patients, their families and communities, and the overall health system;
- Providing ambulatory experiences, multidisciplinary team-based care, chronic disease management, prevention and wellness training, and quality improvement skills<sup>2</sup>;
- Applying longitudinal training/continuity experiences across the program;
- Assessing not only knowledge but also skills, attitudes and values.

The training program prioritizes values, aims, and principles of health care services in Vietnam, international competencies for learning and life, and a focus on community, local, national and global health needs.

The core principles for resident competency provided by VinUni and the core principles from the disciplines of medicine and nursing, showed a significant degree of overlap between the two fields. Moreover, the area of overlap provides a solid foundation for interprofessional education and team-based care. While the disciplinary knowledge and scope of practice for doctors and nurses may be different, each discipline seeks to provide high-quality, evidence-based, professional, compassionate, and ethical care, and to collaborate effectively in teams in the provision of that care. The principles describe

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<sup>1</sup> Deborah J. DeWaay et al, Am J Med Sci 2016, Redesigning Medical Education in Internal Medicine: Adapting to the Changing Landscape of 21st Century Medical Practice

<sup>2</sup> Thomas S. Huddle et al, Acad Med. 2008, Internal Medicine Training in the 21st Century

professional practice, and both medicine and nursing are professional practitioners within their disciplines.

### **1.1 VinUni Generic Graduate Attributes**

Generic graduate attributes are a set of skills, attributes, and values that all learners should achieve regardless of discipline or field of study; should be measurable and broad. The five Generic Graduate Attributes for VinUni, framed around the EXCEL Model, are listed as below:

- **EMPATHY:** Sense other people’s emotions, understand others without judgement.
- **EXCEPTIONAL CAPABILITIES:** Exceptional capabilities and competencies that are proven determinants of future success.
- **CREATIVITY:** Perceive the world in new ways, make connections, generate solutions.
- **ENTREPRENEURIAL MINDSET:** Overcome challenges, be decisive, accept responsibility, be impactful for the society.
- **LEADERSHIP SPIRIT:** Motivate and influence people to act toward achieving a common goal.

## **2. PROGRAM OVERVIEW**

### **2.1 Program Description**

Name of the program degree	Internal Medicine Residency Program
Program duration	4 years
Total credits	255 credits

### **2.2 Program Mission**

**The program aims to train residents to become doctors, who:**

- Practice comprehensive internal medicine, emphasizing excellence in clinical skills and evidence-based, high-value, compassionate, culturally-competent care
- Acquire training and preparation to be competitive for subspecialty training
- Conduct clinical, patient safety, or quality improvement research
- Educate patients and colleagues effectively
- Work collaboratively and with collegiality in an interdisciplinary team, including competent team leadership

### **2.3 Professional Competency Standards**

Our curriculum will ensure that residents achieve competencies required by ACGME-I in 6 domains, which are further subdivided into 38 standards, which are indicated below:

<p><b>1. Patient Care</b> 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. Residents must demonstrate proficiency in:</p>	<p>1.1 Serving in a variety of roles including direct patient care provider, leader or member of a multi-disciplinary team of providers, consultant to other physicians, and teacher to the patient and other physicians; 1.2 Preventing, counseling, detecting, diagnosing and treating gender-specific diseases; 1.3 Managing patients in a variety of health care settings, including the inpatient ward, the critical care units, and the emergency setting; 1.4 Managing patients across the spectrum of clinical disorders as seen in the practice of general internal medicine, including the subspecialties of internal medicine and non-internal medicine specialties; 1.5 Using clinical skills of interviewing and physical examination; 1.6 Using the laboratory and imaging techniques appropriately; and, 1.7 Providing care for a sufficient number of undifferentiated acutely and severely ill patients.</p>
<p><b>2. Medical Knowledge</b> Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care. Residents must demonstrate proficiency in knowledge of:</p>	<p>2.1 Evaluating patients with an undiagnosed and undifferentiated presentation; 2.2 Treating medical conditions commonly managed by internists; 2.3 Providing basic preventive care; 2.4 Interpreting basic clinical tests and images; 2.5 Recognizing and providing initial management of emergency medical problems; 2.6 Using common pharmacotherapy; and, 2.7 Using and performing diagnostic and therapeutic procedures appropriately.</p>
<p><b>3. Practice-based Learning and Improvement</b> Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on continuous self-evaluation and life-long learning. Residents are expected to develop skills and habits to be able to meet the following goals:</p>	<p>3.1 Identify strengths, deficiencies, and limits in one's knowledge and expertise; 3.2 Set learning and improvement goals; 3.3 Identify and perform appropriate learning activities; 3.4 Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; 3.5 Incorporate formative evaluation feedback into daily practice; 3.6 Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems; 3.7 Use information technology to optimize learning; and, 3.8 Participate in the education of patients, families, students, residents, and other health professionals.</p>

<p><b>4. Interpersonal and Communication Skills</b> Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Residents must:</p>	<p>4.1 Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; 4.2 Communicate effectively with physicians, other health professionals, and health-related agencies; 4.3 Work effectively as a member or leader of a health care team or other professional group; 4.4 Act in a consultative role to other physicians and health professionals; and, 4.5 maintain comprehensive, timely, and legible medical records.</p>
<p><b>5. Professionalism</b> Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents must demonstrate:</p>	<p>5.1 Compassion, integrity, and respect for others; 5.2 Responsiveness to patient needs that supersedes self-interest; 5.3 Respect for patient privacy and autonomy; 5.4 Accountability to patients, society and the profession; and, 5.5 Sensitivity and responsiveness to a diverse patient population, including to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.</p>
<p><b>6. Systems-based Practice</b> Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents must:</p>	<p>6.1 Work effectively in various health care delivery settings and systems relevant to their clinical specialty; 6.2 Coordinate patient care within the health care system relevant to their clinical specialty; 6.3 Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate; 6.4 Advocate for quality patient care and optimal patient care systems; 6.5 Work in inter-professional teams to enhance patient safety and improve patient care quality; and, 6.6 Participate in identifying system errors and implementing potential systems solutions.</p>

### 3. CURRICULUM STRUCTURE

#### 3.1 Curriculum Composition

The Internal Medicine Residency Program is to be completed within four years on a full-time basis. The curriculum consists of 256 credits.

MOH (2006) requires a minimum of 150 educational credits for all residency training programs, regardless of the specialty. CHS Internal Medicine Residency Program fulfills this requirement in the following way:

No.	Area of Study	Number of Credits	Credit Distribution
1	Compulsory Courses by MOH	21	8.2%
2	Core Clinical Skills courses	26	10.2%

No.	Area of Study	Number of Credits	Credit Distribution
3	Core Clinical Rotations	198	77.6%
4	Thesis	10	3.9%
<b>Total</b>		<b>255</b>	<b>100%</b>

### 3.2 Courses and Credit Distribution by Courses

#### Compulsory Courses by MOH

*21 credits (19 theory, 2 practice)*

No.	Subjects/Education Units	Course code	Credits	Distribution	
				Theory	Practice
1.	Marxism-Leninism Philosophy (Philosophy Science and Society)	HASS1010	3	3	0
2.	Research	RESE6011	6	4	2
3.	Medical Pedagogy	PEDA6011	2	2	0
4.	Medical English	ENGL6011	10	10	0

#### Core Clinical Skill Courses

*26 credits (20.5 theory, 5.5 practice)*

No.	Subjects/Education Units	Course code	Total credits	Allocation	
				Theory	Practice
5.	Simulation/Procedures block	CCSC6020	4	0	4
6.	Clinical Pharmacology Review	CCSC6040	3	3	0
7.	History and Physical Exam series	CCSC6050	8	7	1
8.	Differential Diagnosis Series	CCSC6060	3	3	0
9.	Laboratory Interpretation	CCSC6070	3.5	3.5	0
10.	Clinical Emergencies	CCSC6080	1	1	0
11.	Basic Radiology	CCSC6100	1	1	0
12.	Communication skills	CCSC6030	1.5	1	0.5
13.	General Education Block	CCSC6010	1	1	0



**Core Clinical Rotations****198 credits (40.5 theory, 157.5 practice)**

No.	Subjects/Blocks	Course code	Credits	Distribution	
				Theory	Practice
14.	Oncology 1	IMCR6011	5	1	4
15.	Oncology 2	IMCR6012	7.5	1.5	6
16.	Oncology 3	IMCR6013	0	0	0
17.	Oncology 4	IMCR6014	5.5	1	4.5
18.	Cardiology 1	IMCR6021	2.5	0.5	2
19.	Cardiology 2	IMCR6022	10	2	8
20.	Cardiology 3	IMCR6023	2.5	0.5	2
21.	Cardiology 4	IMCR6024	4	0	4
22.	Critical Care Medicine 1	IMCR6031	5	1	4
23.	Critical Care Medicine 2	IMCR6032	10	2	8
24.	Critical Care Medicine 3	IMCR6033	5	1	4
25.	Critical Care Medicine 4	IMCR6034	0	0	0
26.	Emergency Department 1	IMCR6041	2.5	0.5	2
27.	Emergency Department 2	IMCR6042	5	1	4
28.	Emergency Department 3	IMCR6043	7.5	1.5	6
29.	Emergency Department 4	IMCR6044	7	1	6
30.	General Internal Medicine 1	IMCR6051	12.5	2.5	10
31.	General Internal Medicine 2	IMCR6052	22.5	4.5	18
32.	General Internal Medicine 3	IMCR6053	16.5	2.5	14
33.	General Internal Medicine 4	IMCR6054	12.5	2.5	10
34.	General Medicine Clinic 1	IMCR6061	5	1	4
35.	General Medicine Clinic 2	IMCR6062	7.5	1.5	6
36.	General Medicine Clinic 3	IMCR6063	5	1	4

No.	Subjects/Blocks	Course code	Credits	Distribution	
				Theory	Practice
37.	General Medicine Clinic 4	IMCR6064	12.5	2.5	10
38.	Elective	IMEL6001	25	8	17

The number of credits for each rotation can be slightly different among residents and will be recorded at the end of the academic year based on the actual individual schedule.

### Thesis

*10 credits (0 theory, 10 practice)*

No.	Subjects/Education Units	Course code	Total credits	Distribution	
				Theory	Practice
39.	Thesis	IMCR6890	10	0	10

### 3.3 Curriculum Planner

Rotation with credit by PGY levels

Pre-Intern (PGY1)	Intern (PGY2)	Junior Resident (PGY3)	Senior Resident (PGY4)
Oncology (5)	Oncology (7.5)	Oncology (0)	Oncology (5.5)
Cardiology (2.5)	Cardiology (10)	Cardiology (2.5)	Cardiology (4)
Critical Care Medicine (5)	Critical Care Medicine (10)	Critical Care Medicine (5)	Critical Care Medicine (0)
Emergency Department (2.5)	Emergency Department (5)	Emergency Department (7.5)	Emergency Department (7)
General Internal Medicine (12.5)	General Internal Medicine (22.5)	General Internal Medicine (16.5)	General Internal Medicine (12.5)
General Medicine Clinic (5)	General Medicine Clinic (7.5)	General Medicine Clinic (5)	General Medicine Clinic (12.5)
Core Clinical Skill Courses (26)	Research(6)		Elective (25)
Medical Pedagogy (2)		Thesis (10)	
Medical English (10)			
Marxism-Leninism Philosophy (Philosophy Science and Society) (3)			

### **3.4. Brief Course Descriptions**

#### **3.4.1 Compulsory Courses**

##### ***Marxism-Leninism Philosophy (Philosophy Science and Society) (HASS1010, 3 credits)***

- This course is required by MOH.
- Implemented by Faculty of Art and Science.
- Will occur during PGY1.
- Philosophy will help residents achieve VinUni's learning outcomes related to their qualities, abilities, critical thinking, national pride and global awareness as outlined in the Competency Framework of VinUni learners.

##### ***Research (RESE6011, 6 credits)***

- This course is required by MOH.
- Will occur during PGY2.
- The Research course provides an overview on the research process, research methods, and EBM. Specific topics covered in this course include introduction to public health, study design, measures of disease, formulation of research questions using the PICO (Population/Patient, Intervention, Control/Comparison, Outcome) format, and EBM. Learners will learn to apply research methods and EBM into patient care scenarios to as well as into scholarship. The Learning objectives of this course includes recognizing the importance of research and evidence-based medicine; summarizing the steps needed to practice evidence-based medicine; demonstrating proficiency in formulating a research question using the PICO framework; describing the process to conduct a literature search; learning to effectively facilitate a journal club session.

##### ***Medical Pedagogy (PEDA6011, 2 credits)***

- This course is required by MOH to equip the teaching skills to the residents.
- The overriding goal of this course is for residents to develop the knowledge, attitudes, and skills needed to effectively understand and integrate core concepts in medical education into your work as a physician. By offering opportunities for residents to hone their skills in areas such as clinical reasoning, giving feedback, and assessing junior trainees and learners, we aim to strengthen the physician workforce and to promote the delivery of high-quality health care in Vietnam.
- This course will occur over a 2-year period during residency training. The first credit will be delivered during the Core Clinical Skills course of the PGY1 year, and the second credit will be delivered during the PGY2 year.
- Part 1 will consist of 5 workshops, and the exact timing of the workshops will be decided in conjunction with the course director(s) of Core Clinical Skills. Part 2 will consist of 3 workshops delivered on working Saturdays. In both Parts 1 and 2, GME residents will join the sessions together. This course uses multiple teaching

modalities including but not limited to didactic lectures, facilitated small-group discussion, case studies, role play, and simulation training.

***Medical English (ENGL6011, 10 credits).***

- This subject is the requirement from MOH. However, the training program will be taught in English so this requirement will be greatly exceeded.
- Implemented by Faculty of Art and Science.
- Will occur during PGY1/PGY2.

**3.4.2 Core Clinical Skill courses**

The following supporting courses are sub-courses of the Core Clinical Skills course (CCS) which aims to reinforce, strengthen, and expand the medical knowledge and skills of our first-year residents prior to their introduction to the clinical training environment.

CCS is potentially the first course of its kind in Vietnam which brings together first-year resident trainees from Internal Medicine, Pediatrics and Surgery. The themes and objectives in this course span all 3 of these clinical specialties and this is a valuable opportunity for collaborative learning in an interdisciplinary way. The course will focus on highly practical and relevant themes including history-taking, physical examination, differential diagnosis, evidence-based medicine, communication skills, medical knowledge and decision-making, common clinical emergencies, procedure skills, and laboratory/radiology interpretation.

This course will incorporate a longitudinal clinical preceptorship to allow learners the opportunity to put theory into practice with real-world observation and mentoring by clinical faculty members.

The course will contain multiple teaching modalities with an emphasis on active learning methods including facilitated small group discussion, case discussions, self-directed learning and simulation training.

By the end of the CCS course, residents are expected to:

- Develop a strong foundation of medical knowledge, skills, and clinical decision-making to begin supervised practice in clinical settings.
- Demonstrate competence for a defined set of procedural and communication skills.
- Use communication skills effectively with patients and other members of the healthcare team.
- Gain awareness of clinical operations at Vinmec and partner hospitals through a longitudinal preceptorship.

***General Education Series (CCSC6010)***

**Course Learning Objectives**

By the end of the General Education Series sub-course, residents are able to:

- Define ethical issues in clinical medicine.
- Identify jurisprudence issues in medical practice.
- Document of patient care precisely and coherently in both inpatient and outpatient setting.

***Simulation/Procedures (CCSC6020, 4 credits)***

Course Learning Objectives

By the end of the Simulation/Procedures sub-course, residents are able to:

- Identify the indications of each procedure skills listed in the topics list below.
- Perform each procedure skills in the topics list independently in simulated settings.

***Communication Skills (CCSC6030, 1.5 credits)***

Course Learning Objectives

By the end of the Communication Skills sub-course, residents are able to:

- Develop a good relationship with patients in order to improve the care including counsel to change patient behavior.
- Develop an approach to breaking bad news and provide strategies addressing patients' feelings, concerns and fear created by bad news.
- Disclose medical error to a simulated patient with honesty, compassion and respect.
- Facilitates discussion and interaction effectively among team members.
- Appropriately demonstrate how to obtain informed consent incorporating local the local medical-legal framework.
- Ability to counsel patients with alternative medicine or palliative medicine.

***Clinical Pharmacology Review (CCSC6040, 3 credits)***

By the end of the Clinical Pharmacology Review sub-course, residents are able to:

- Classify the major drugs and drug classes used in medical practice.
- Demonstrate an evidence-based approach to pharmacologic treatment for given diseases and specific patients.
- Develop best practices for antimicrobial stewardship.

***History Taking Skills and Physical Exam Series (CCSC6050, 8 credits)***

By the end of the History Taking Skills and Physical Exam Series sub-course, residents are able to:

- Obtain the history from the patients accurately and comprehensively.
- Perform the physical examination rationally and skillfully.

***Differential Diagnosis Series (CCSC6060, 3 credits)***

By the end of the Differential Diagnosis Series sub-course, residents are able to:

- Create problem list of patients based on history, symptoms, physical examination.
- Generate differential diagnosis from the problem list.

***Laboratory Interpretation (CCSC6070, 3.5 credits)***

By the end of the Laboratory Interpretation sub-course, residents are able to:

- Identify the indications for basic laboratory tests rationale for use.
- Interpret the lab test results appropriately and precisely.

***Clinical Emergencies (CCSC6080, 1 credit)***

By the end of the Clinical Emergencies sub-course, residents are able to:

- Recognize common presentation of critical illness for a variety of age groups.
- Demonstrate competence with primary survey, secondary survey, and team communication skills.
- Demonstrate competence with initial medical management and stabilization of common clinical emergencies.

***Basic Radiology (CCSC6100, 1 credit)***

By the end of the Basic Radiology sub-course, residents are able to:

- Recognize basic anatomy and pathology as seen on imaging studies.
- Develop a systematic approach for reviewing Xray images of the Chest, Abdomen, and Extremities.
- Understand the basic diagnostic principles of CT and MRI and know when they should be used.

### **3.4.3 Core Clinical Rotations**

#### **Oncology**

***Oncology 1 (IMCR6011, 5 credits)***

***Oncology 2 (IMCR6012, 7.5 credits)***

***Oncology 4 (IMCR6014, 5.5 credits)***

An exposure to oncology is provided during the oncology inpatient rotation. The primary focus of this rotation are patients admitted with malignancies for treatment, complications of their diseases, pain control and end-of-life care.

During this rotation, residents should be able to: 1) learn overall management strategies associated with the care of patients with malignancies and those undergoing chemotherapy, as well as common diseases in hematology; 2) become familiar with the administration, side effects and drug interactions of therapeutic agents commonly used for the treatment of malignant disease; 3) identify complications of chemotherapy including the evaluation and management of neutropenia fever; 4) identify patients family members at risk for malignancy and counsel them regarding risk reduction and screening; 5) undertake the palliative care of patients with common malignancies; 6) participate in the difficult decisions regarding all aspects of management including diagnostic evaluation and screening, treatment and palliative care; 7) learn the principles of pain management and nutrition; 8) the indications and procedures for transfusions of blood and its separate components.

Residents have the opportunity to learn procedures under the direct supervision of faculty. Central venous and arterial catheter placement, thoracentesis, paracentesis, lumbar puncture, endotracheal intubation, and arthrocentesis, will be performed under the direct supervision of the attending until the resident has demonstrated competency in these procedures.

## **Cardiology**

***Cardiology 1 (IMCR6021, 2.5 credits)***

***Cardiology 2 (IMCR6022, 10 credits)***

***Cardiology 3 (IMCR6023, 2.5 credits)***

***Cardiology 4 (IMCR6024, 4 credits)***

Residents will rotate through inpatient cardiology to: 1) develop skills to evaluate and manage patients with diseases of the cardiovascular system; 2) learn the mechanisms, clinical manifestations, and diagnostic strategies for patients with acute and chronic diseases of the heart; 3) implement primary and secondary preventive strategies and to refer patients to subspecialists at the appropriate time in their disease; 4) understand the different therapeutic options for patients with cardiovascular disease at various stages; 5) plan ongoing management of a patient with: coronary artery disease, congestive heart failure, atrial fibrillation and valvular heart disease.

## **Critical Care Medicine (ICU)**

***Critical Care Medicine 1 (IMCR6031, 5 credits)***

***Critical Care Medicine 2 (IMCR6032, 10 credits)***

***Critical Care Medicine 3 (IMCR6033, 5 credits)***

Critical care medicine encompasses the diagnosis and treatment of a wide range of clinical problems representing the extreme of human disease. Critically ill patients require intensive care by a coordinated team including a general internist, subspecialists, and allied health professional staff. Most often, the general internist provides care in coordination with other physicians, especially those trained in critical care. However, in some settings, the general internist may be the primary provider of care and may also serve as a consultant for critically ill patients on surgical services. Therefore, the general internist must have command of a broad range of conditions common among critically ill patients, and must be familiar with the technologic procedures and devices used in the intensive care setting. The care of critically ill patients raises many complicated ethical and social issues, and the general internist must be competent in such areas as end-of-life decisions, advance directives, estimating prognosis, and counseling of patients and their families.

Residents have the opportunity to learn procedures under the direct supervision of the Critical Care Medicine faculty. Central venous, pulmonary artery, and peripheral arterial catheter placement; thoracentesis; paracentesis; lumbar puncture; endotracheal intubation; and arthrocentesis, will be done in the presence of the attending until the resident has demonstrated competency in these procedures.

## **Emergency Department (ED)**

***Emergency Department 1 (IMCR6041, 2.5 credits)***

***Emergency Department 2 (IMCR6042, 5 credits)***

***Emergency Department 3 (IMCR6043, 7.5 credits)***

***Emergency Department 4 (IMCR6044, 7 credits)***

Emergency medicine involves the evaluation and care of acute illness and injury requiring intervention within a limited time span. It is defined by a time interval, rather than by a particular organ. Some conditions may be encountered in office practice, others in acute care settings. Regardless of the setting, the General Internists should be able to manage common emergency conditions and provide consultation and management for a variety of acute serious illnesses. The range of competencies expected of General Internists will depend on the availability of emergency physicians and other specialists in the community.

Residents will perform initial evaluations of adult and adolescent patients presenting to the ED with the full range of differentiated and undifferentiated medical and surgical problems. The residents present their findings to an Emergency Medicine attending who then sees the patient to verify history and physical findings. Together, they develop a diagnostic and therapeutic plan.

Residents have the opportunity to learn procedures under the direct supervision of the ED faculty. Central venous and arterial catheter placement, thoracentesis, paracentesis, lumbar puncture, endotracheal intubation, arthrocentesis, and pelvic examination will be performed under the direct supervision of the attending until the resident has demonstrated competency in these procedures. In addition, microscopic analysis of urine, sputum, pleural, peritoneal, and joint fluid specimens will be performed.

**General Internal Medicine**

***General Internal Medicine 1 (IMCR6051, 12.5 credits)***

***General Internal Medicine 2 (IMCR6052, 22.5 credits)***

***General Internal Medicine 3 (IMCR6053, 16.5 credits)***

***General Internal Medicine 4 (IMCR6054, 12.5 credits)***

Inpatient training in general internal medicine is designed to enable residents to achieve the knowledge, skills and attitudes of competent general internists. In the course of their inpatient rotations at Vinmec and public hospitals, trainees are expected to gain proficiency in the diagnosis and management of inpatient medical issues. Learning occurs through hands on, supervised clinical experiences, amplified by bedside and didactic teaching. Teaching rounds occur daily and didactic conferences occur 5 days per week. These serve to reinforce the etiology, pathogenesis, clinical presentation and natural history of diseases treated by general internists; demonstrate appropriate skills in diagnosis, judgment and resourcefulness in therapy; receive instruction and feedback to master interviewing, communication and interpersonal skills that are necessary to elicit and record a thorough and accurate history, establish and maintain a therapeutic physician-patient relationship, and initiate or motivate the patient to implement optimal



medical management; receive instruction and feedback to master physical exam skills; and demonstrate the humanistic treatment and care of patients.

Residents have the opportunity to learn procedures under the direct supervision of faculty. Central venous and arterial catheter placement, thoracentesis, paracentesis, lumbar puncture, endotracheal intubation, and arthrocentesis, will be performed under direct supervision of the attending until the resident has demonstrated competency in these procedures.

### **General Medicine Clinic**

***General Medicine Clinic 1 (IMCR6061, 5 credits)***

***General Medicine Clinic 2 (IMCR6062, 7.5 credits)***

***General Medicine Clinic 3 (IMCR6063, 5 credits)***

***General Medicine Clinic 4 (IMCR6064, 12.5 credits)***

Each resident is assigned to one of 2 Patient Care Teams (PCTs): A or B. Each resident has their own panel of patients within the PCT that they keep throughout the residency. The general medicine experience involves care for a unique patient panel and urgent care for the other care team provider's patients. When assigned to their general medicine clinic, each trainee will see patients 4-5 half days a week. These sessions will include appointments for their own patient panel as well as urgent appointments for patients belonging to the panels of other members of their PCT.

The approach to care is multidisciplinary and involves trainees at each level under supervision of 2 general internist faculty members who do not have other responsibilities during their assigned trainee precepting time.

The General Medicine Clinic experience is designed to provide residents with the following: a structure for team-based care; experiences in urgent care and chronic disease management; an opportunity for self-directed learning and for patient-related clinical teaching to other residents; the skills of phone medicine; participation in the teams quality improvement project; regular review of individual metrics through their clinical dashboard, and an understanding of the roles and responsibilities of non-physician providers and staff.

Residents can expect to perform ambulatory procedures such as Pap smears, wet preps, arthrocentesis, incision and drainage, and minor suturing in their clinics.

### **Elective (IMEL6001, 25 credits)**

PGY4 residents are provided the opportunity to choose their desired subspecialty within the field of internal medicine for their elective rotation. They will be scheduled for clinical rotation in the chosen sub-specialty, adhering to the specified learning objectives tailored to that particular subspecialty.

#### **3.4.4 Thesis**

##### ***Thesis (IMCR6890, 10 credits)***

PGY3 residents will be allocated a dedicated four-week period outside their clinical rotation schedule, supplemented with additional time, to formulate a research proposal, obtain Institutional Review Board (IRB) approval, engage in research activities, compose their thesis, and subsequently defend it.