



**VINUNIVERSITY**

**COLLEGE OF HEALTH SCIENCES**

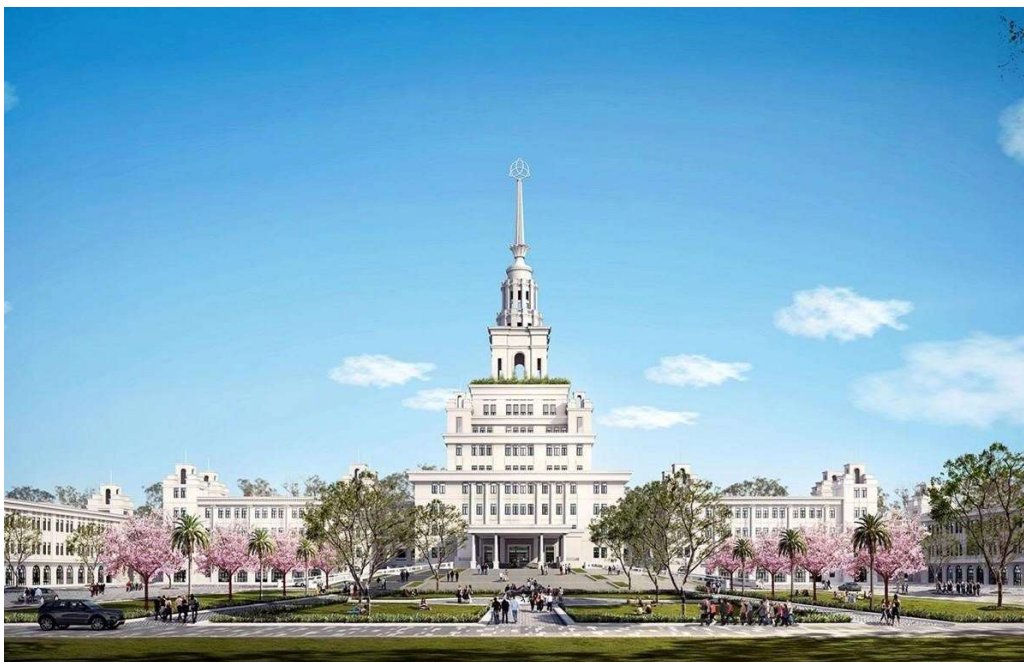
# **CURRICULUM FRAMEWORK**

## **PEDIATRICS RESIDENCY PROGRAM**

**Program code: 62721655**

**Applicable from the Academic year 2024 - 2025**

*(Decision No: 461c/2024/QĐ-VUNI, Dated: 29/8/2024, by the Provost of VinUniversity)*





## PEDIATRICS RESIDENCY PROGRAM CURRICULUM FRAMEWORK

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## 1. GRADUATE ATTRIBUTES

The Pediatrics Residency Program at the College of Health Sciences at VinUniversity 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 based on international standards for residents as defined by the ACGME-I so that residents who complete the training are able to not only deliver high-quality services nationally but also meet international professional standards. The principle of graded responsibility, which is a core component of any competency-based graduate medical education program, is a primary tenet of Pediatrics residency training at College of Health Sciences - VinUni. 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 Pediatrics Residency Program at College of Health Sciences - VinUni 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.

### 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:

- **E-Empathy:** Sense other people's emotions, understand others without judgement.
- **X-Exceptional Capabilities:** Exceptional capabilities and competencies that are proven determinants of future success.
- **C-Creativity:** Perceive the world in new ways, make connections, generate solutions.
- **E-Entrepreneurial mindset:** Overcome challenges, be decisive, accept responsibility, be impactful for society.
- **L-Leadership spirit:** Motivate and influence people to act toward achieving a common goal.

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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

## 2. PROGRAM OVERVIEW

### 2.1 Program Description

Name of the program degree	Pediatrics Residency Program
Program duration	4 years
Total credits	260.5 credits

### 2.2 Program Mission

The program aims to train residents to become pediatricians, who:

- *Practice comprehensive pediatrics*, emphasizing excellence in clinical skills and evidence-based, high-value, compassionate, and culturally competent care.
- Acquire training and preparation to be *competitive for subspecialty training at national and international settings*.
- Conduct clinical, patient safety, or quality improvement research.
- *Educate* patients, medical students, and colleagues effectively.
- Acquire leadership skills *and work collaboratively* and collegially in an interdisciplinary team.

### 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 and 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 pediatrics, including the subspecialties of pediatrics and non-pediatric 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>
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<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 pediatricians; 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 Pediatrics Residency Program is to be completed within four years on a full-time basis. The curriculum consists of 260.5 credits.

MOH (2006) requires a minimum of 150 educational credits for all residency training programs, regardless of the specialty. Peds-VU fulfills this requirement in the following way:

No	Area of Study	Number of Credits	Credit Distribution
1	Compulsory Courses by MOH	17	7%
2	Core Clinical Skills	4	2%
3	Core Clinical Rotations	229.5	88%
4	Thesis	10	4%
<b>Total</b>		<b>260.5</b>	

#### 3.2 Courses and Credit Distribution by Courses

Subjects/Blocks	Course Code	Credits	Theory	Practice
<b>Compulsory courses by MOH</b>		<b>17</b>		
Marxism-Leninism Philosophy (Philosophy Science and Society)	HASS1010	3	3	0
Research Methods and Evidence-Based Medicine	CCSC6142	2	2	0
Medical Pedagogy	PEDA6011	2	1	1
Medical English	ENGL6011	10	10	0
<b>Core Clinical Skill Course</b>		<b>4</b>		
<b>Core Clinical Rotation</b>		<b>229.5</b>		
General Inpatient Pediatrics	PECR6011 PECR6012 PECR6013 PECR6014	20	4	16
Neonatology (NICU)	PECR6021 PECR6022 PECR6024	20	4	16
Pediatric Critical Care (PICU)	PECR6091 PECR6092 PECR6093 PECR6094	20	4	16
Pediatrics Emergency Medicine (ED)	PECR6081 PECR6082 PECR6083 PECR6084	20	4	16



Newborn Nursery (NBN)	PECR6031 PECR6033	5	1	4
Adolescent Medicine	PECR6060	5	1	4
Developmental Behavioral Pediatrics/ Child Psychiatry	PECR6070	5	1	4
Community Pediatrics/Advocacy	PECR6053	8	4	4
Ambulatory Clinic	PECR6041 PECR6042 PECR6043 PECR6044	10	2	8
Pediatric Subspecialties	PEDS6001 PEDS6002 PEDS6003 PEDS6004	116.5	22.5	94
<b>Thesis (Research blocks)</b>	PECR6890	<b>10</b>	6	4

### 3.3 Curriculum Planner

There will be 8 residents per class. Five primary teaching services include General Inpatient Pediatrics (GenPeds), Neonatology (NICU), Pediatric Critical Care (PICU), Emergency Medicine (ED) and Newborn Nursery (NBN). Please see the attached pediatrics resident matrix by year for more detail.

PGY3 and PGY4 residents will be layered on top of intern teams and provide direct supervision of intern and student activities regarding patient care.

Each person has a total of 16 weeks of vacation during their residency program. These are broken into 1- and 2-week blocks and spaced throughout the year.

Pediatric continuity clinic is an outpatient clinic where each trainee will see their own patient panels. They may also see patient sick visits from other trainees' panels as needed. There will also be opportunities to rotate through other ambulatory specialty clinics, such as Dermatology or Newborn Follow-Up.

Subspecialty experiences will include both inpatient and outpatient experiences and the exact setting may vary based on whether it is required or elective rotation. Please refer to the appendix (subspecialty blocks) for further details.

All PGY3s and PGY4s have research rotations to support the completion of their thesis work.

There are multiple clinical rotations at the public hospital throughout the four years of residency (PGY1, PGY2, PGY3, and PGY4) to promote development of independent clinical skills and provide the needed breadth and depth of acuity and clinical diagnoses.

### 3.3.1 Curriculum Year Planner

<b>PGY-1</b>	<b>Weeks</b>	<b>PGY-2</b>	<b>Weeks</b>	<b>PGY-3</b>	<b>Weeks</b>	<b>PGY-4</b>	<b>Weeks</b>
CCS + Orientation	8						
NCH PICU	4	NCH PICU	4	NCH PICU Senior	4	NCH PICU Senior	4
NCH ED	4	NCH NICU	4	VMEC ED	4	NCH ED Senior	4
VMTC NICU	4	NCH ED	4	NCH Subspecialty*	12	NCH NICU Senior	4
VMTC Newborn Nursery	4	Elective - Research	4	NCH Child Psychiatry	4	VMTC NICU Senior	4
VMTC Gen Peds	4	NCH Adolescent	4	NCH Ambulatory (Derm + resident choice)	4	VMTC Gen Peds Senior	4
NCH Gen Peds	4	VMEC Vaccin	4	VMEC Gen Peds Senior	4	NCH Subspecialty*	8
NCH Subspecialty*	12	NCH Subspecialty*	20	Elective	10	Elective	<b>18</b>
Community	2	Community	2	Elective-Research	4	Community	2
Electives	2	Electives	2	Community	2	Vacation	4
Vacation	4	Vacation	4	Vacation	4		
<b>TOTAL</b>	<b>52</b>		<b>52</b>		<b>52</b>		<b>52</b>

### **3.4 Brief Course Descriptions**

#### **3.4.1 Compulsory Courses**

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

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.

##### ***Medical English (ENGL6011 - 10 credits)***

As per the Vietnam Ministry of Health requirements, all residents who have not yet met a Vietnamese Standardized Test of English Proficiency (VSTEP) 4 equivalent level of English must study Medical English. This Medical English course comprises of three components (150 hours), including English for Communication (25 hours), Applied Medical English (25 hours), and online self-access study with SLC English for Doctors (100 hours). This Medical English course will help strengthen residents' English language skills and communicative competency in professional medical settings. Moreover, residents will develop useful communicative and academic skills on this course which will help them in their career. There will be a final proficiency test like the initial placement test to assess if residents have reached VSTEP level 4 equivalence in English language skills. This course will be graded on a pass/fail basis determined by participation, attendance, and satisfactory completion of assignments.

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

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 PGY-1 year, and the second credit will be delivered during the PGY-2 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.

### ***Research Methods and Evidence-Based Medicine (CCSC6142, 2 credits)***

- This course is required by MOH.
- Will occur during PGY1.
- 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.

### **3.4.2 Core Clinical Skill (CCSC6150, 4 credits)**

Core Clinical Skills Course focuses on common topics of pharmacotherapy which are essential for all residents regardless of their specialty, communication skills and simulation training and clinical procedural skills. Pharmacotherapy reinforces reviewing of antibiotic classes, PK/PD of antibiotics and antimicrobial stewardship aim to:

- Understand the pharmacokinetic and pharmacodynamic principles for the most common antimicrobials in hospital settings
- Optimize the antimicrobial dosing based on Pharmacokinetic and Pharmacodynamic Principles
- Review the current challenge of antibiotic resistance
- Outline components of an effective stewardship program
- Understand the role of prescribers in antibiotic stewardship program

Communication skills reinforce core principles focused on professionalism, interpersonal and communication skills, and effective patient care. The residents will practice in detail scenarios such as breaking bad news, medical errors and disclosure, interprofessional communication and obtaining patient consent. These scenarios will help residents recognize the key role of communication in patient care and interprofessional collaboration, demonstrate effective communication in a variety of settings including obtaining patient consent, medical error disclosure, breaking bad news, and end of life care planning and describe medical professionalism and the fundamental principles and professional responsibilities.

The Simulation Training and Clinical Procedural Skills sessions utilize a variety of teaching pedagogies to develop practical skills required for all residents. The curriculum includes a combination of didactic lectures, small-group learning, and simulation activities that are primarily conducted at the VinUniversity Simulation Center. Core content covered in this course includes Basic Life Support (BLS), and Pediatric Advanced Life Support (PALS) training as well as communication skills training, procedural skills training, and mock code simulations. These sessions aim to:

- Attain certification in BLS, and PALS.
- Practice advanced life support skills in clinical scenarios in a simulated setting.

- Understand the indications, contraindications, potential complications, anatomic considerations, required equipment, and expected outcomes for procedures that are commonly performed in the clinical setting.
- Develop proper and safe basic techniques for procedures that are commonly performed in the clinical setting to facilitate future deliberate practice in the simulation and clinical setting.

### **3.4.3 Simulation**

Simulation refers to an artificial representation of a real-world process to achieve educational goals through experiential learning. Simulation based medical education is defined as any educational activity that utilizes simulation aides to replicate clinical scenarios. Simulation-based education will complement and augment the pediatric residents' clinical and didactic education in sessions that occur throughout their training. Simulation incorporating direct feedback and reflective learning will be used to build communication skills, engage in inter-professional teamwork, practice new and unfamiliar tasks in a risk-free environment, and prepare for rare but complicated events including resuscitations. Furthermore, simulation may be used for evaluation and credentialing purposes.

### **3.4.4 Clinical Rotations**

#### ***General Inpatient Pediatrics (PECR6011, PECR6012, PECR6013, PECR6014, 30 credits)***

Inpatient training in general pediatrics is designed to enable residents to achieve the knowledge, skills and attitudes of competent general pediatricians. During their inpatient rotations at Vinmec and public hospitals, trainees are expected to gain proficiency in the diagnosis and management of inpatient pediatric issues. Learning occurs through hands on, supervised clinical experiences, amplified by bedside and didactic teaching. Teaching rounds and didactic conferences occur several times per week. These serve to reinforce the etiology, pathogenesis, clinical presentation and natural history of diseases treated by general pediatricians; 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 faculty supervision.

#### ***Ambulatory Clinic (PECR6041, PECR6042, PECR6043, PECR6044 - 15 credits)***

The General Pediatric Clinic experience is designed to provide residents with the following: experiences in acute care and chronic disease management; the opportunity for longitudinal patient care to learn normal growth and development in pediatrics and recognize features requiring intervention; an opportunity for self-directed learning and for patient-related clinical teaching to other residents; the skills of phone medicine; participation in quality improvement projects; regular review of individual metrics through their clinical dashboard, and an understanding of the roles and responsibilities of non-physician providers and staff.

Each resident has their own panel of patients that he/she keeps throughout the three years of residency. The general pediatrics experience involves care for a unique patient panel and sick visits for panel and non-panel patients. For the continuity clinics, the residents will see both sick children and well-child for a minimum of 36 half-days per year. The residents will staff their patients with the clinic faculty who do not have other responsibilities during their assigned trainee precepting time.

Residents can expect to perform ambulatory procedures including visual and developmental screening and other procedures as appropriate for the ambulatory setting.

***Community Pediatrics/ Advocacy (PECR6053, 8 credits)***

Community Pediatrics/Child Advocacy encompasses the care of children in the context of their environment and community. Residents will learn to become components in their role as a child advocate, understand how to effectively advocate for children within their community, and how to work in partnership with community entities to promote the well-being of children. The ACGME-I requires a total of 2 blocks (8 weeks) of which include elements of Community Pediatrics and Child Advocacy. During these blocks, they will work in community sites and in cooperation with community partners. Based on the medical model of teaching (observe, learn, practice skills, then teach), there will be didactic presentations and practical, interactive educational opportunities with graded independence, culminating in their PGY3 and PGY4 year advocacy experience.

***Pediatrics Subspecialty (PEDS6001, PEDS6002, PEDS6003, PEDS6004, 88 credits)***

During subspecialty rotations, residents will explore other areas of pediatrics to round out their education. The goal will be to give exposure to subspecialty pediatric areas not typically seen in the core rotations. The subspecialty rotations will be primarily inpatient, but may include outpatients, consultation and/or procedural experience. Residents may also choose to return to a subspecialty rotation for an elective experience. ACGME-I requires exposure to at least 7 subspecialties, a minimum of 5 of which must be chosen from the list “Subspecialty A” below. Subspecialty B may be fulfilled by any subspecialties listed in either “Subspecialty A” or “Subspecialty B” list below.

<b>Subspecialties A</b>	<b>Subspecialties B</b>
Child abuse	Child & Adolescent Psychiatry
Medical Genetics	Hospital & palliative medicine
Pediatric Allergy & Immunology	Neurodevelopmental Disabilities
Pediatric Cardiology	Pediatric Anesthesia
Pediatric Dermatology	Pediatric Dentistry
Pediatric Gastroenterology	Pediatric Ophthalmology
Pediatric Hematology-Oncology	Pediatric Orthopedic Surgery
Pediatric Infectious Disease	Pediatric Otolaryngology
Pediatric Nephrology	Pediatric rehabilitation medicine
Pediatric Neurology	Pediatric radiology
Pediatric Pulmonology	Pediatric surgery

Pediatric Rheumatology	Sleep Medicine
	Sports Medicine

Each clinical experience is designed to provide residents with the following: experiences in acute care and chronic disease management in the subspecialty area; an opportunity for self-directed learning and for patient-related clinical teaching to other residents; and an opportunity to work in an interdisciplinary team. Residents may have the chance to perform procedures, under supervision, related to the subspecialty area of rotation.

***Electives***

Residents are required to have a minimum of six educational units of an individualized curriculum as determined by the learning needs and future career plans of the residents. PGY3 and PGY4 residents also have designated ‘elective’ blocks which allow residents to explore their professional interests and may draw from a broader range of opportunities. Residents who are in good academic standing and in their terminal year of training may be eligible to apply for away elective rotations, such as at international partner sites like Children’s Hospital of Philadelphia, during an elective rotation.

***Newborn Nursery – NBN (PECR6031, PECR6032, PECR6033, 10 credits)***

Residents will rotate through the newborn nursery. They will learn to thoroughly examine a newborn. Residents will review familial and perinatal risk factors for illness. They will learn to recognize abnormal exam findings and be familiar with their management. Residents will also become familiar with the management of common neonatal problems including but not limited to hypoglycemia, hypothermia, and jaundice and identify signs and symptoms of severe illness in the neonate and know when to transfer to a higher level of care. In addition, residents will have an opportunity to learn and provide neonatal resuscitation at the time of delivery. Parent education and anticipatory guidance will be emphasized during this rotation.

***Pediatrics Emergency Medicine – ED (PECR6081, PECR6082, PECR6083, 15 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 Pediatrician 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 Pediatricians will depend on the availability of pediatric emergency physicians and other specialists in the community.

Residents will perform initial evaluations of pediatric 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 a Pediatric Emergency Medicine (PEM) 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 supervision of the PEM faculty. Procedures, as detailed in the list above, will be performed under the direct supervision of the attending until the resident has demonstrated competency in these procedures. In addition, laboratory results and imaging will be reviewed, discussed and incorporated into the diagnostic and therapeutic plan.

***Pediatric Critical Care (PICU, PECR6092, PECR6093, PECR6094, 10 credits) and Neonatal Intensive Care (NICU, PECR6021, PECR6022, PECR6024, 15 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 – both neonatal and pediatric - require intensive care by a coordinated team including the intensivist (pediatric critical care physicians or neonatologists), subspecialists, and allied health professional staff. However, in some settings, the general pediatrician may be the primary provider of care and may also serve as a consultant for critically ill patients on surgical services. Therefore, the general pediatrician 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. This is particularly true of neonates with complicated deliveries, undiagnosed metabolic, genetic or anatomical abnormalities or early onset sepsis who require stabilization and management until transported to higher levels of care if and when available. The care of critically ill patients raises many complicated ethical and social issues, and the general pediatrician must be competent in such areas as end-of-life decisions, advance directives, estimating prognosis, and counseling of patients and their families. During their neonatology rotation at Vinmec, residents will be expected to participate in prenatal consults learning how to assess and discuss the expected medical management in addition to parental expectations and concerns. Residents will also attend deliveries and participate in neonatal resuscitation.

Residents have the opportunity to learn procedures under the direct supervision of the Pediatric Critical Care and Neonatology faculty. In addition to the list above, this may also include umbilical vein catheterization, which will be done in the presence of the attending until the resident has demonstrated competency in these procedures.

***Developmental – Behavioral Pediatrics/Child Psychiatry (PECR6070, 5 credits)***

Residents are required by the ACGME-I to spend one block learning about Development and Behavioral Pediatrics. Given the context in Vietnam, Pediatrics residents at VinUni will fulfill this experience through a 4-week rotation in the Child Psychiatry department. General pediatricians are expected to be familiar with child development from birth through adolescence across developmental domains. This allows the pediatrician to provide parents with anticipatory guidance and referrals for further testing, evaluation and early intervention as needed. Residents will have the opportunity to focus on normal milestones and familiarize themselves with standard developmental screening tools. This rotation will also expose residents to the common presentations of behavioral issues and the major areas of atypical development and their management. Residents are expected to familiarize themselves with the resources and treatments available for children with developmental and behavioral issues and



for their families that exist within or outside the medical system including at the community, school, and governmental levels.

***Adolescent Medicine (PECR6060, 5 credits)***

The adolescent rotation, a required block by the ACGME-I, is an inpatient rotation that also includes opportunities to attend outpatient visits and consultations in conjunction with faculty mentors. General pediatricians must be familiar with normal growth and pubertal development and the special health needs of adolescents. Residents will learn to discuss and manage sexual and reproductive health issues, psychological and behavioral health issues, eating disorders, and substance abuse issues, while maintaining a patient's confidentiality as allowed by the law. Residents will also learn to help patients navigate the transition from pediatrics to internal medicine which is of particular importance for children with complex medical needs who "age-out" of pediatrics.

***3.4.4 Procedural Training***

The following procedures and skills, as required by ACGME-I, will be performed under direct supervision of the attending until the resident has demonstrated competency in these procedures. Some of these may be taught mainly through simulation depending on available resources and clinical settings.

- bag-mask ventilation
- bladder catheterization
- developmental screening
- lumbar puncture
- neonatal and non-neonatal endotracheal intubation
- peripheral intravenous catheter placement
- procedural sedation and pain management
- reduction of simple dislocation
- simple laceration repair
- simple removal of foreign body
- Immunization administration
- temporary splinting of fracture
- tympanometry and audiometry interpretation
- venipuncture
- vision screening
- arterial line placement
- arterial puncture
- chest tube placement
- thoracentesis