

MED 3008: INTRODUCTION TO PEDIATRICS

Course Date	March 01 - March 26, 2021	
Exam Dates	Theoretical Exam: March 25, 2021	
Course Coordinator:	FATİH ÖZDENER	
Academic Unit	Academic Staff	Theoretical hours
General Pediatrics	Figen Dađlı, Prof. Suna Çelen, Assist. Prof Fatma Çakmak Çelik, Assist Prof.	12
Pediatric Cardiology	Gülendam Koçak, Prof.	4
Pediatric Allergy & Immunology	Ü. Ayfer Yükselen, Prof.	5
Neonatology	Ali Haydar Turhan, Prof. Fatma Çakmak Çelik, Assist Prof.	4
Pediatric Nephrology	Duygu Hacıhamdiođlu, Assoc. Prof.	8
Pediatric Neurology	Hatice Gülhan Sözen, Assist. Prof.	3
Pediatric Hematology	Koray Yalçın, Assist. Prof.	6
Pediatric Endocrinology & Metabolism	Serap Ata, Assist. Prof.	4
TOTAL		46

COURSE AIM:

The aim of this course is to describe health maintenance and preventive care for children, including age-related issues in nutrition, vaccination; identify normal growth, development in childhood; recognize the characteristics of newborn and postnatal care; recognize common acute and chronic pediatric cardiologic, allergic, immunologic, pulmonologic, nephrologic and neurologic conditions, provide comprehensive information on the diagnosis and management of these common pediatric diseases.

LEARNING OUTCOMES:

At the end of this lesson, the student will be able to:	
TOPIC	LEARNING OUTCOMES
Growth and development (in infancy and school age) (T-1)	<ol style="list-style-type: none"> 1. Describe physical growth and development in infants and toddlers 2. Explain cognitive development in infants and toddlers 3. Explain emotional and social development during infancy
Nutrition in childhood (T-1)	<ol style="list-style-type: none"> 1. Describe nutrition and calorie needs of infants and children 2. Compare nutritional qualities of human milk and infant formula
The basis of immunization in childhood (T-1)	<ol style="list-style-type: none"> 1. Recognize the importance of immunization in healthcare 2. Recognize the importance of immunization to prevent disease 3. Describe types and objectives of immunization
Taking History in Pediatrics (T-1)	<ol style="list-style-type: none"> 1. Demonstrate the skills necessary to perform a complete and accurate pediatric history including prenatal, birth, developmental, dietary, immunization, and psychosocial histories.
Physical examination of Head and Neck (T-1)	<ol style="list-style-type: none"> 1. Identify anatomic landmarks of the head, neck, eye, ear, nose and throat 2. Describe the physical examination techniques for routine evaluation of the head, and neck 3. Describe normal findings of the head, neck, eye, ear and nose and throat exam.
Upper Respiratory Tract Infections (T-1)	<ol style="list-style-type: none"> 1. Explain and categorize common upper respiratory infections 2. Be familiar with usual pathogens for common respiratory infections
Anthropometric measurements (T-1)	<ol style="list-style-type: none"> 1. Recognize importance of anthropometric measurements 2. Describe the techniques for calculating anthropometric measurements
Disorders with rash (T-1)	<ol style="list-style-type: none"> 1. Define the skin lesions, learn the terminology 2. Recognize the most common types of rashes 3. Recognize the most common childhood diseases with rash 4. Define the etiology, signs, symptoms and the treatment of the diseases
Breast milk (T-1)	<ol style="list-style-type: none"> 1. Define the composition of Milk 2. Describe the correct Breastfeeding Method 3. List the benefits of breastfeeding for the infant 4. List the benefits of Breastfeeding for Mother 5. List the absolute Contraindications of Breastfeeding

	Abdominal examination (T-1)	<ol style="list-style-type: none"> 1. Define the steps of abdominal examination (Observation, Auscultation, Palpation, Percussion) 2. Describe the Evaluation of abdominal examination
	Approach to abdominal pain in childhood (T-1)	<ol style="list-style-type: none"> 1. Classify the abdominal pain 2. Describe the history, clinical assessment of patient with abdominal pain 3. Make differential diagnosis and management of patient with abdominal pain
	Approach to hepatosplenomegaly in childhood (T-1)	<ol style="list-style-type: none"> 1. Identify the possible causes of hepatosplenomegaly 2. List the important diagnostic considerations in patients who have hepatosplenomegaly 3. Describe what clinical findings occurring in a patient who has hepatosplenomegaly 4. Describe the most helpful initial tests 5. Define the diagnostic evaluation of the neonate and child with hepatosplenomegaly
PEDIATRIC CARDIOLOGY	History taking and Physical examination of cardiovascular system in childhood (T-1)	<ol style="list-style-type: none"> 1. Name all the routine questions that are involved in taking history of pediatric patients with cardiovascular disease 2. Explain why they are being asked 3. Discuss targeted history taking for cardinal symptoms including murmur, chest pain, shortness of breath, palpitations, syncope, edema, fatigue, exercise intolerance, and cyanosis 4. Differentiate between history of chief complaint and past medical history 5. Understand the basics of the cardiac vascular components of the physical exam 6. Explain each part of the physical examination of the CVS
	Acyanotic, left to right shunt congenital heart diseases (T-1)	<ol style="list-style-type: none"> 1. Define the anatomy and pathophysiology of VSD, ASD and PDA. 2. Identify the physical examination findings, symptoms and signs of all these left to right shunt lesions 3. Identify the diagnostic techniques, such as ECG, telecardiogram, echocardiography and others. 4. Define the basic treatment approaches for left to right shunt congenital cardiac abnormalities.
	Approach to syncope and chest pain in childhood. (T-1)	<ol style="list-style-type: none"> 1. Evaluate a child with chest pain and syncope 2. Define the pathophysiology, diagnostic techniques, and the treatment approaches for these symptoms 3. Identify the symptoms and signs of chest pain and syncope originated from heart disease 4. Categorize chest pain and syncope as cardiac and noncardiac in origin 5. Organize and prioritize a differential diagnosis based on specific physical historical and exam findings 6. Order appropriate laboratory and diagnostic studies for the most likely etiologies of acute chest pain and syncope 7. Interpret ECG in chest pain and syncope 8. Recognize the life threatening causes of chest pain and syncope
	Cyanotic congenital heart diseases and approach to cyanosis (T-1)	<ol style="list-style-type: none"> 1. Define cyanosis in children, etiologies and pathogenesis 2. Make differential diagnosis based on cyanosis in children. 3. Define the anatomy and pathophysiology of cyanotic congenital heart diseases 4. Identify the physical examination findings, symptoms and signs of Fallot Tetralogy and transposition of great arteries.

		<ol style="list-style-type: none"> Identify the diagnostic techniques, such as ECG, telecardiogram, echocardiography and others in TOF. Define the treatment approaches for Tetralogy of Fallot and transposition of great arteries.
PEDIATRIC ALLERGY and IMMUNOLOGY	Anaphylaxis (T-1)	<ol style="list-style-type: none"> Mention the Types of Hypersensitivity Reactions. Define Anaphylaxis. Mention the Etiologic Causes. Explain the Pathophysiologic Mechanism. Mention the Signs & Symptoms. Demonstrate the Diagnostic Investigations. Display the Treatment & First Aid.
	Pneumonia (T-1)	<ol style="list-style-type: none"> Define pneumonia List the factors that predispose to pneumonia Explain the pathophysiology of pneumonia Make the clinical classification of pneumonia List common pathogens in pneumonia List clinical symptoms and signs of pneumonia Describe the laboratory evaluation of pneumonia Explain the treatment of pneumonia
	History taking and physical examination of respiratory system (T-1)	<ol style="list-style-type: none"> Revise knowledge of anatomy and physiology Obtain health history about respiratory system Demonstrate physical examination Differentiate between normal and abnormal findings
	Approach to child with immunodeficiency (T-1)	<ol style="list-style-type: none"> Define primary and secondary immunodeficiencies Define whom to evaluate for immunodeficiency Describe diagnostic approach to immunodeficiencies List characteristic features of some immunodeficiencies List the laboratory tests for humoral and cellular immunodeficiency
	Asthma diagnosis in childhood (T-1)	<ol style="list-style-type: none"> Make the definition of childhood asthma Define the pathophysiology of asthma List the triggering factors in childhood asthma Take history and make physical examination in childhood asthma Describe the pulmonary function tests in asthma
NEONATOLOGY	Physical examination of newborn (T-1)	<ol style="list-style-type: none"> Quickly identify any danger signs and organize the appropriate referral after pre-referral treatment Assess the normal adaptations of a newborn after birth Identify conditions requiring special care or follow-up observation. Identify any birth defect or birth trauma Monitor growth Counsel the mother
	Postnatal care of newborn (T-1)	<ol style="list-style-type: none"> Explain the importance of postnatal care Briefly describe the main physiological changes in the newborn in the postnatal period Describe the main danger signs in the postnatal newborn Give routine care to a healthy infant. Advise a mother about care of a normal infant.
	Resuscitation of newborn (T-2)	<ol style="list-style-type: none"> Describe the individual tasks of a resuscitation team. Delineate the role of continuous heart rate monitoring during resuscitation. List the steps to providing adequate thermoregulation for the extremely low-birth weight infant. Describe the role of T-piece resuscitators.

PEDIATRIC NEPHROLOGY	Clinical manifestations of Hypovolemia (T-1)	<ol style="list-style-type: none"> 1. Describe the body fluid composition 2. Explain the hypovolemia etiologies 3. Explain the assessment of the degree of hypovolemia 4. Explain the evaluation of the hypovolemia
	Approach to Hematuria (T-1)	<ol style="list-style-type: none"> 1. Describe the definition of hematuria 2. Explain the limitation of laboratory results 3. Explain the classification of the hematuria 4. Define the differential diagnosis of hematuria
	Approach to Proteinuria (T-1)	<ol style="list-style-type: none"> 1. Describe the definition of proteinuria 2. Explain the pathogenesis of proteinuria 3. Describe the assessment of laboratory for proteinuria 4. Understand the classification of proteinuria
	Approach to edema in childhood (T-1)	<ol style="list-style-type: none"> 1. Describe the edema definition 2. Describe the pathophysiology of edema in children 3. Explain the and etiology of edema in children 4. Explain the evaluation
	Approach to the child with arthritis (T-2)	<ol style="list-style-type: none"> 1. Describe the arthritis definition 2. Explain the features in the history for differential diagnosis 3. Explain the features in physical examination for differential diagnosis 4. Explain the evaluation
	Approach to vomiting in childhood (T-1)	<ol style="list-style-type: none"> 1. Describe the definitions 2. Explain the physiology 3. Explain the serious and prevalent etiologies 4. Explain the approach to the vomiting child 5. Describe the treatment
	Urinary tract infections (T-1)	<ol style="list-style-type: none"> 1. Define clinical forms of Urinary Tract Infections (UTI) 2. Explain clinical symptoms of UTI 3. Interpret culture according to urine collection method
PEDIATRIC ENDOCRINOLOGY & METABOLISM	Thyroid function tests and Hypothyroidism – Hyperthyroidism (T-1)	<ol style="list-style-type: none"> 1. Explain the function of thyroid hormones 2. Describe the conditions which lead to abnormal thyroid hormone production 3. Interpret thyroid function tests 4. Describe presenting symptoms and signs of hyperthyroidism and hypothyroidism 5. Describe pathogenesis of hyperthyroidism and hypothyroidism 6. Describe laboratory tests needed to diagnose hyperthyroidism and hypothyroidism
	Approach to being overweight and obesity in childhood (T-1)	<ol style="list-style-type: none"> 1. Define the pathophysiology and classification of obesity 2. List the most common causes of weight gain 3. Define the metabolic syndrome 4. Evaluate a patient with obesity 5. Define the general approaches in treatment of obesity
	Hormonal regulation of bone metabolism and approach to calcium and vitamin D metabolism disorders (T-1)	<ol style="list-style-type: none"> 1. Define bone modeling and remodeling 2. Identify the effects of parathyroid hormone in bone metabolism 3. Identify the effects of vitamin D in bone metabolism 4. Describe the calcium and vitamin D metabolism 5. Describe the approach to a patient with hypercalcemia 6. Describe the approach to a patient with hypocalcemia
	Approach to dysmorphic child (T-1)	<ol style="list-style-type: none"> 1. Define dysmorphism and common syndromes

PEDIATRIC HEMATOLOGY	Coagulation Cascades Bleeding diathesis (T-3)	<ol style="list-style-type: none"> 1. Describe the coagulation and the factors which take place in the coagulation cascade 2. Identify the signs and symptoms of bleeding diathesis 3. Be familiar with the diagnostic workup of bleeding diathesis
	Thrombocyte Disorders (T-1)	<ol style="list-style-type: none"> 1. Describe the thrombocyte disorders and associated diseases 2. Identify the signs and symptoms of thrombocytopenia 3. Be familiar with the diagnostic workup of thrombocyte disorders
	Hemoglobinopathies (T-2)	<ol style="list-style-type: none"> 1. Describe the anemia and hemoglobinopathy 2. Identify the signs and symptoms of hemoglobinopathies 3. Be familiar with the diagnostic workup of hemoglobinopathies
PEDIATRIC NEUROLOGY	Neurologic examination in childhood (T-1)	<ol style="list-style-type: none"> 1. Describe how to handle the neurological examination steps (General concepts, Higher cortical functions, Cranial nerves, Motor system → Posture and involuntary movements/Tone and strength/Coordination, Sensory system, Tendon reflexes, Developmental reflexes, Superficial reflexes, Gait , Spine, Head → Head circumference / Fontanel / Sutures)
	Mental-Motor development (T-1)	<ol style="list-style-type: none"> 1. Identify stages of child development 2. Describe physical, intellectual, emotional and social characteristics of developmental stages 3. Define early detection of delayed development and early intervention and treatment
	Central nervous system infections (T-1)	<ol style="list-style-type: none"> 1. Promptly recognize the patient with an acute CNS infection syndrome 2. Rapidly initiate appropriate empiric therapy 3. Rapidly and specifically identify the etiologic agent, adjusting therapies as indicated 4. Optimize management of complicating features