

**DESCRIPTION OF COURSE UNIT FOR DOCTORAL STUDIES
AT VILNIUS UNIVERSITY**

Scientific Area/eas, Field/ds of Science	Medical and Health Sciences (M 000): Medicine (M 001)			
Faculty, Institute, Department/Clinic	Faculty of Medicine Institute of Clinical Medicine Clinic of Children's Diseases			
Course unit title (ECTS credits, hours)	Clinical Paediatrics 10 credits (270 hours)			
Study method	Lectures	Seminars	Consultations	Self-study
Number of ECTS credits	-	1	1	8
Method of the assessment (in 10 point system)	<p>Presentation and evaluation of the report: the report is presented on a target topic, which is coordinated with the coordinating lecturers (the doctoral student must analyze, review and present the latest scientific publications related to the respective topic). Criteria for evaluating the report (minimum readable score - 5): (a) relevance, novelty and relevance of the material submitted (2 points); (b) general structure and scope of the report, clear presentation of the knowledge, reasoning, brevity and specificity (2 points); (c) Summary, presentation and justification of conclusions (1 point); (d) raising problematic issues, presenting the application of the reviewed knowledge in the dissertation (3 points); (e) organization of visual aids, ability to participate in a discussion, management of questions, oratory skills (2 points).</p>			
PURPOSE OF THE COURSE UNIT				
<p>To provide theoretical and practical knowledge of paediatric disease terminology, epidemiology, aetiology, pathogenesis, diagnostics, including modern molecular diagnostics, the latest treatments, research methods and paediatric disease prevention. Promote interdisciplinary collaboration with physicians in paediatric diseases of various subspecialties, holistic approach to long-term care of children with chronic and rare diseases.</p>				
THE MAIN TOPICS OF COURSE UNIT				
<p>Perinatal conditions and major neonatal diseases. Assessment of the condition of a healthy and sick newborn. Transient conditions. Peculiarities of preterm and preterm infant feeding, advantages of breastfeeding. Perinatal infection. Characteristics, most common conditions and diseases of nursing newborns. Conditions and diseases in newborns that require surgical treatment.</p> <p>Respiratory diseases in children. Ante- and postnatal development of the respiratory system, anatomical and physiological features of the respiratory system and functional relationship with other body systems. Etiopathogenesis of paediatric respiratory diseases, most common nosologies, primary and secondary prevention. Oxygen metabolism in the body, respiratory failure and its evaluation. Cough as a protective reaction of the human body and a sign of the disease, prolonged and chronic cough in children. Diagnosis, differential diagnosis and treatment of upper and lower airway obstructive and infectious syndromes. Diagnosis and treatment of chronic purulent respiratory diseases (cystic fibrosis, primary ciliary dyskinesia, bronchiectasis). Interstitial lung disease.</p>				

Paediatric tuberculosis. Examination and evaluation of external respiratory function. Interventional pulmonology (basics of bronchoscopy, thoracic surgery).

Gastrointestinal diseases in children. Diseases of the oral cavity. Esophageal diseases. Gastroesophageal reflux disease. Stomach diseases. Gastrointestinal disorders. Constipation. Malabsorption syndrome. Celiac disease. Food allergy. Nonspecific ulcerative colitis. Crohn's disease. Anorexia. Differential diagnosis of vomiting in children. Differential diagnosis of abdominal pain in children. Bleeding from the gastrointestinal tract. Diseases of the gallbladder, bile ducts and liver. Portal hypertension. Pancreatic diseases.

Cardiovascular diseases in children. Congenital and acquired heart defects. Myocardial and pericardial diseases. Infectious endocarditis. Cardiac arrhythmias and conduction disturbances. Heart failure. Arterial hypertension. Syncope. Cardiac pathology of the newborn.

Systemic connective tissue and joints diseases in children. Differentiation of leg pain. Juvenile idiopathic arthritis. Reactive arthritis. Systemic lupus erythematosus. Juvenile dermatomyositis. Scleroderma. Vasculitis.

Blood disorders in children. Structure and changes in peripheral blood in children. Iron deficiency anaemia. Iron prevention in the first year of life. Platelet pathology. Lymphadenopathy. Acute leukaemia. CNS tumours. Principles of monitoring patients recovering from oncological disease.

Kidney diseases in children. Nephrological syndromes in children. Urinary tract infection. Acquired glomerular disease. Systemic diseases affecting the kidneys. Toxic and medicinal nephropathies. Hereditary nephropathy. Tubulopathies. Paediatric kidney stones. Urinary system abnormalities. Renal hypertension. Acute renal failure. Chronic renal failure. Urinary disorders.

Endocrine and metabolic diseases in children. Major clinical syndromes of endocrine diseases. Growth and puberty disorders in children. Sexual developmental disorders in children. Rickets. Obesity. Hypotrophy. Diabetes in children.

Infectious diseases of children. Peculiarities of epidemiology of infectious diseases in children and principles of infection control. Prevention of infectious diseases in children, Lithuanian preventive vaccination calendar. Development of children's immune system, peculiarities of immunity at different ages. Differential diagnosis and treatment options for the most common clinical symptoms/syndromes. Viral and bacterial infection, diagnosis, differential diagnosis, treatment and prevention of children. Epidemiological and clinical features of HIV infection in children. Diagnosis of congenital HIV infection and monitoring of newborns. COVID-19 disease in children, the most common clinical forms and principles of treatment. Peculiarities of tuberculosis prevention, examination and treatment in children. Principles of rational use of antibacterial drugs, empirical antibacterial therapy of major infectious diseases in children.

Rare diseases in children. The concept and prevalence of a rare disease. Inherited metabolic diseases. Indications for testing. Urgent conditions due to congenital metabolic diseases. Modern diagnostic and treatment options. Peculiarities of multidisciplinary care. Centers of excellence and reference. European reference networks for rare diseases.

RECOMMENDED LITERATURE SOURCES

1. Neonatologija T.Lissauer, A.A.Fanaroff, L.Miall, J.Fanaroff Vilnius UAB „Vaistų žinios“ 2021; ISBN978-609-8215-26-7
2. Kending's disorders of the respiratory tract in children / Eds: Chernick V, Boat TF, Wilmott RW, Bush A. – Philadelphia: Saunders Elsevier, 2019. – 1110 p.
3. Bishop WP. Vaikų gastroenterologija. Vertė V.Urbonas, B.Tumienė. Vilnius UAB „Vaistų žinios“. 2012.
4. www.thecardiologyadvisor.com

5. Ross E Petty, Ronald Laxer, Carol Lindsley, Lucy Wedderburn, Robert C Fuhlbrigge, Elizabeth D. Mellins. Textbook of Paediatric Rheumatology (2021)
6. Kraujo ir onkologinė ligos. Paediatrica//, II tomas, Kaunas, 2018, p. 483-491
7. Paediatric Nephrology/ [edited by] Ellis D. Avner, William E. Harmon, Patrick Niaudet, Norishige Yoshikawa, Francesco Emma, Stuart L. Goldstein.- Seventh Edition 2016, ISBN 978-3-662-43596-0 (eBook)
8. <https://www.uptodate.com/contents/table-of-contents/paediatrics/paediatric-endocrinology>
9. Principles and Practice of Paediatric Infectious Diseases. Sarah S. Long at al. by Sarah S. Long MD (Editor), Charles G. Prober MD (Editor), Marc Fischer MD (Editor), 2018
10. Vesikari T, Van Damme P. et all. Paediatric Vaccines and Vaccinations. A European Textbook, 1st edition. Springer International Publishing AG, 2017
11. GeneReviews. Seattle (WA): University of Washington, Seattle; 1993-2022. ISSN: 2372-0697<https://www.ncbi.nlm.nih.gov/books/NBK1116/>
12. Lietuvos Respublikos Sveikatos apsaugos ministerijos Vaikų ligų diagnostikos ir gydymo protokolai: 43 rizikingiausių paciento saugai vaikų ligų ir būklių diagnostikos ir gydymo metodinės rekomendacijos, 2015 (atnaujinta 2022-02-08); 2450 p.
13. <http://sam.lrv.lt/diagnostikos-gydymo-metodikos-ir-rekomendacijos/diagnostikos-ir-gydymo-protokolai>

CONSULTING LECTURERS

1. Coordinating lecturer: Rimante Cerkauskiene (Prof. Dr.).

2. Arunas Valiulis (Prof. Habil. Dr.).

3. Inga Ivaskeviciene (Dr.)

APPROVED:

By Council of Doctoral School of Medicine and Health Sciences at Vilnius University:
29th of September 2022

Chairperson of the Board: Prof. Janina Tutkuvienė