

**P7 Description of program for publishing online  
PEDIATRICS AND PEDIATRIC ENDOCRINOLOGY RESIDENCY  
PROGRAM DESCRIPTION**

Title of the residency study program	State code
<b>Pediatrics and pediatric endocrinology</b>	733A30094

Academy awarding institution	Language
Lithuanian University of Health Sciences (LUHS), Medical Academy, Clinic of Endocrinology, A. Mickevičiaus g. 2, LT-44307 Kaunas, Lithuania	Lithuanian

Kind of studies	Cycle of studies	Level of qualification according to Lithuanian Qualification Structure (LKS)
University studies	Non- degree studies	7 <sup>th</sup> level

Mode of studies and length in years	Volume of program in ECTS credits	Total amount of student work	Formal teaching and practise hours	Independent self-direct learning hours
Nuolatinė, 5 metai	360	8800	7531	1269

Area of studies	Main field of study program	Parallel study program (if available)
Biomedical sciences	Medicine	-

Professional qualification awards
Pediatrician and pediatric endocrinologist

Director of study program	Director's contact information
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Institution of accreditation	Accreditation until
Centre for Quality Assessment in Higher Education	Year 2014

Aim of residency study program
To prepare a doctor specialist, awarded a professional qualification of pediatrician and pediatric endocrinologist, who is interested in science and practise innovations and reaching for higher medical degree.

Residency program profile		
Disciplines/ subject areas	Orientation of the program	Distinctive features of the residency study program
Programs consists of obligatory and optional cycles, pediatric	Applied orientation	Program is prepared taking into account: LR legislation, directive of European

<p>endocrinology cycle, including theory, practise and self-sustaining job. Obligatory cycles are orientated on improving pediatrician knowledge and practical skills, concentrating in the areas of healthy newborn's, infant's and child's physical and psychomotorical development, healthy and diseased child ambulatory and stationary care. Cycles consists of the main pediatric areas: neonatology, emergency medicine, pediatric pulmonology, allergology, nephrology, gastroenterology, oncology and hematology, cardiology, rheumatology, infectious diseases, pediatric neurology, endocrinology, also the pediatric intensive care and pediatric surgery. Aiming to gather good practical skills in solving child's social problems, a cycle of social medicine is also confirmed.</p> <p>An obligatory cycle of visual diagnostics in pediatrics assures obtaining knowledge and practical skills in various ranges of pediatric radiology areas. Optional cycles are designed to deepen knowledge of separate areas of pediatric diseases: nutrition of a healthy and diseased child, chronic pulmonary diseases, children's rehabilitation and neurorehabilitation, long-time care of children with diabetes mellitus, pediatric neurosurgery and etc.</p> <p>Cycle of pediatric endocrinology is orientated in deepening doctor's knowledge and practical skills in the areas of a newborn, an infant and child's endocrine system physiology and pathology. This cycle involves pediatric diabetology and metabolism pathology, development and</p>	<p>program, orientated to practical activity and developing abilities for scientific research work, providing pediatric endocrinologist professional qualification.</p>	<p>parliament and council 2005/3/EB, European Union of Medical Specialists. Chapter 6, Charter on Training of Medical Specialists in the EU. Requirements for the speciality Endocrinology, Diabetes and Metabolism. UEMS 2007; Cumming AD, Ross MT. The Tuning Project (medicine) – learning outcomes/ competences for undergraduate medical education in Europe. Edinburgh: The University of Edinburgh, 2008; Bulajeva T., Lepaite D., Sileikaite-Kaishauri D. Study program manual. Vilnius, 40 p., 2012 (prepared for project “National Concept Preparation for European Credit Transfer and Accumulation System (ECTS): Harmonisation of Credits as well as Creation and Implementation of the Learning Outcomes Based Study Programs Methodology“ (Nr. VP1-2.2-ŠMM-08-V-01-001).</p> <p>Program of endocrinology is based on theoretical studies, practical and scientific job integration from the first year of studies. Practical skills are obtained and theory course is realised with the help of professors LUHS – residency base specialists.</p> <p>For the anaesthesiology-reanimatology residency study cycles the main residency base – LUHS Hospital Public Institution “Kaunas Clinics” is accredited.</p> <p>LUHS Kaunas Clinics is the main residency base for the residence of endocrinology as there are all laboratories and subunits in the same department: Unit of Endocrinology in the multiprofile hospital (85 beds), ambulatory care (8 consulting rooms), diabetic foot care (1 room), diabetes school (1 room), Unit of Pediatric Endocrinology in the multiprofile hospital (22 beds), ambulatory care consulting rooms, ultrasonography room, room of puncture aspiration and biopsy of thyroid gland. Tertiary care of endocrinologist is available 24 hours/day for inpatients.</p> <p>Facilities of radiology, laboratory medicine, intensive care and pathology are available 24 hours/day</p> <p>Institution for residency is chosen according to the regulations of the Council of LUHS residency.</p>
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sexual maturation physiology and pathology, thyroid, parathyroid glands, adrenal glands physiology and pathology, laboratory testings of endocrine glands ir pharmacological testings, intensive pediatric endocrinology.		Scientific and research skills are improved while studying in the Clinics and Institute of Endocrinology.
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<b>Admission requirements</b>	<b>Recognition of previous learning</b>
<p>Master degree in medicine and medical doctor professional qualification and licence for medical practice are obligatory. Admission by the way of general competition. Competitive score structure is given in the conditions for entrance to the LUHS residency programs. The main components of competitive score is the average assessment of all subjects, studied during integral studies, final exam assessment, clinical medicine practice assessment, student's scientific activities assessment (appointed by Student Science Association (SMD)), motivational interview assessment. Motivational interview takes place according to the schedule set in advance. Motivation Committee is composed of academic endocrinologists staff and residents representatives. Scientific activities in the field of endocrinology as well as voluntary clinical practice in the unit of endocrinology profile and qualities of human being are evaluated. Competition is public and takes place separately to every residential study program in two stages (main and additional). Second or additional stage can be organised if after the main admission free places are still available.</p>	<p>Results of previous studies are accepted individually, taking into account the developed competencies and goals of program that correspond to pediatrics residency study program, with the guidance of procedures set by LUHS Senate.</p>

<b>Access to further education</b>
Degree providing third cycle doctoral studies

<b>Access to further education</b>
<p>Doctor with pediatric endocrinology speciality can do practical job in state as well as in private health care institutions, which have licence to run endocrinology profile services. Licence of a pediatric endocrinologist is provided by the State Health Care Accreditation Agency under the Ministry of Health and Republic of Lithuania, after submitting a diploma of completed medical studies program, internship certificate and certificate of completed residency. Pediatric endocrinologist is capable of doing scientific research and educational work in universities. Certificate of completed residency and qualification of endocrinologist is accepted in European Union. Despite the fact that now ambulatory care of children is given to ( šėimos gyd), the need of pediatricians in ambulatory decreased, but still the pediatric areas are ministered by pediatricians. According to that, Republic's of Lithuania Ministry of Health Law Nr. V- 458 (2009.06.10) confirms an alternative concept of primary health care, which consists of an internist, pediatrician, obstetrician-gynaecologist and surgeon all taken in one.</p> <p>According to information of Lithuanian Union of doctors, from 1057 doctors, who only have pediatric speciality, 312 of them (29,5%) are at the age of pensionary ( &gt;60 years for women and &gt;62 years for men). It is predicted, that in 5 years 227 doctors will reach this age. So, It is prognosticated, that in the year of 2017 540 of pediatricians (who have no subspeciality) will retire. Trying to count, at least a group of 20 pediatricians must be trained, so this amount of specialists is optimistic. There were 24 doctors with pediatric endocrinology speciality in Lithuania in</p>

the year 2014. In medical institutions, which provide II<sup>th</sup> level medical care, in some of the biggest Lithuanian cities there is one or two doctors with speciality of pediatric endocrinologist (Klaipėda, Šiauliai, Panevėžys). If every year in the residency of pediatric endocrinology in LUHS on resident would be accepted, the need of pediatric endocrinologists in Lithuanian will be satisfactory.

<b>Learning and teaching approaches</b>	<b>Methods of assessment (of learning achievements)</b>
<p>Various teaching and studying methods are applied: lectures, seminars, consultations, group discussions together with doctors-residents, every-day activity logbook writing, introduction of case reports in corporate patients' considerations of endocrinology department, in medical conferences, preview of educational videos, pictures, cytological samples, creation and performing of the personal improvement plan.</p>	<p>Participation in lectures, seminars, consultations and group discussions is marked in a separate sheet. It is obligatory to accomplish 75% of theoretical themes. There is possibility to work off either individually or with the residents that are studying a certain subject.</p> <p>Oral and writing examination are taken in the end of each cycle. Writing examinations consists of questions from the cycle material. The score is 1-10.</p>
<p>Abilities and skills are gained while taking an ambulatory care of healthy and diseased children, working emergency room and examining and healing all kind of pediatric patient stationary. While taking part in daily and weekly head of sections visitations, discussions about the patients, taking care of the patient while you are supervised by head of residency, also taking night shifts according to residency bases, where also supervised by doctors.</p>	<p>Permanent evaluation of clinical work, preparation and interpretation of diagnostic procedures is performed weekly and approved by the stamp of the head of residency.</p> <p>Evaluation of individual clinical case analysis and presentation is performed during weekly visitations and marked in the sheet of everyday activities and approved by the stamp of the head of residency.</p> <p>References about the everyday work of the resident written by residency base staff (doctors, young researchers, etc.) by letter or questionnaire are used as attachments together with everyday activity sheet. Practical skills are assessed 1-10 and written in the credit book of resident and everyday activity sheet.</p> <p>Presentation of review of scientific literature and clinical case with literature review in the conference of doctors are performed according to the schedule and registered in everyday activity sheet and approved by the tutor of resident twice a year.</p> <p>Final work of residency should be original and meet the requirements of published scientific work. Theme and aim are suggested by the tutor of the resident or by the resident himself. Work results is presented in the conferences of Clinic of pediatrics and the clinic of Endocrinology, qualification courses or during doctors' meeting time, at least once month left before the final exam.</p> <p>Program of residency is finished after practical and</p>

	theoretical exam. Practical exam is performed next to the patient. Theoretical exam is performed written, answering questions and after that discussing them verbally.
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<b>General competencies (knowledge, abilities, values and attitudes)</b>		<b>Outcomes (results) of residency study program</b>	
1.	Professional attributes	1.1	Be honest and honourable with patients, follow medicine ethics norms and requirements for good medicine practice, be critical toward others and himself/herself, be able to feel compassion for the patient, be creative and initiative.
2.	Professional activity	2.1	Be honest and honourable with patients, follow medicine ethics norms and requirements for good medicine practice, be critical toward others and himself/herself, be able to feel compassion for the patient, be creative and initiative.
3.	Doctor as an expert	3.1	Be capable of analysing pediatric endocrinological symptoms, incorporating them in to syndroms, compose plans of examination and treatment. Also be able to improve in pediatric endocrinology section, while learning in all life period. Be able to apply theoretical knowledge into practise skills, also to pass skills and experience to younger colleagues, to plan and administer scietific research.
<b>Subject-specific competences (knowledge, abilities, values and attitudes)</b>		<b>Aims (results) of residency study program</b>	
4.	Patient consultation	4.1	Be able to to practise individually ambulatory and stationary care and treatment of heaalthy and diseased children. Be capable to evaluate psychomotoric and physical development of a healthy and diseased child, perform a general somatic examination, explain and interpretate symptoms of pediatric endocrinology diseases, perform a clinical examination of a child of any age, evaluate general condition and specific ymptoms, formulate and confirm a diagnosis.
		4.2	Be able to clearly explain the aim and point of every single act to a patient or his siblings, also discuss other plans, make a patient and his siblings calm.
5.	Patient's diagnostics and formation of a treatment plan	5.1	Be able to identify clinical pediatric endocrinological conditions and evaluate their severity, make a plan of diagnostic procedures, be capable of interpreting test results, perform a primary (complaints, anamnesis, examination) and secondary (while interpreting test results and planning, performing and interpreting results of addiional tests) differential diagnosis. Compose a correct or an individual patient plan of treatment and discuss it with a patient and his siblings, be able to consider all the negative drug effects and efficiency of administered treatment.

		5.2	Be able to communicate with a patient and his siblings in emergency cases, be capable to gain trust and get informed-consent form, be able to communicate while writing, filling in medical documentation.
6.	Medical emergencies and resuscitation	6.1	Be able to identify conditions, that need emergency treatment, and provide emergency aid, perform primary and specific resuscitation, provide first aid at trauma incidents, perform a procedure, which provides the flow of airways (put an oxygen mask on, provide an oropharyngeal, nasopharyngeal tube, perform an orotracheal intubation, cricothyroidotomy), perform artificial lung ventilation using hand-held and automatic instruments. Be able to perform a defibrillation, cardioversion, electric stimulation of the heart, puncture and catheterization of a peripheral vein, a puncture of bone marrow, injections to a vein, artery, muscle, bone marrow, perform a sedation and anaesthesia, be able to probe stomach.
7.	Performing procedures, evaluation and interpretation of results	7.1	Be able to perform thermometry, pulse oximetry, perform non-invasive evaluation of hemodynamics, supervision of respiratory system and air diffusion, be capable to evaluate results of spirometry, perform a supervision of central nervous system. Also to perform a pharyngoscopy and otoscopy for a child of every age and evaluate results. Be capable of taking a bacteriological test of nasopharyngeal cavity, tonsils, urinary, faecal tests and evaluate results. Also to perform a Montoux test, a rapid test of streptococcus antigen. Be able to perform a lumbar puncture and evaluate fluid results. Be able to perform a peripheral artery and vein puncture, evaluate results of blood tests, biochemical, microbiological, immunological, serological and genetic tests. Be able to perform a catheterization of urinary bladder, take a sample of urine and evaluate urinary test and bacteriological culture results.
		7.2	Be able to evaluate chest X-ray results of , radiology tests and ultrasonography of abdominal cavity.
		7.3	Be able to perform instrumental testing: ECG and interpretate.
		7.4	Be able to perform an ultrasonography of thyroid gland and evaluate pathological changes, be capable of performing laboratory tests, interpreting pharmacological tests and evaluating their results. Be able to evaluate densitometry results. Also be capable of performing a long-term subcutaneous insulin treatment for children who have diabetes mellitus, be able to perform a long-lasting glucose blood level testing and evaluate results.
8.	Participation in health preservation, promoting and encouraging a healthy lifestyle	8.1	Be able to evaluate risk for health and apply suitable and rational means to decrease this risk. Be able to watch narrowly all the psychomotorical and physical development of a child, apply means of infections control (vaccination) Be able to evaluate risk of osteoporosis and obesity for children and apply suitable and rational means for decreasing this risk.
		8.2	Implant for children and their siblings ideas of a healthy lifestyle, healthy diet, skills of exercising. Be part in programs of sexual education, explain for teenagers the importance of about pregnancy planning and control of diseases.

		8.3	Evaluate the effect of air pollution and smoking for healthy of a childs, help to diminish all the chemicals in child's environment. Be able to evaluate the rish of professional factors for one-self's health and take means to diminish it.
		8.4	To participate in health programs on the level of population and of an individual.