

SPECIALITY TRAINING PROGRAM FOR ORTHOPAEDIC TRAUMATOLOGY

Title of the residency study program	State code
Orthopaedic traumatology	733A30079

Academic awarding institution	Language
Lithuanian University of Health Sciences, Medical Academy, Orthopaedic Traumatology Clinics, Eivenių g. 2, Kaunas, Lithuania	Lithuanian

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

Mode of the studies and length in years	Volume of the program in ECTS credits	Total amount of student work	Formal teaching and practice hours	Independent self-direct learning hours
Full-time studies, 5 years	330	8802	7721	1081

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

Professional qualification awarded
Orthopaedist traumatologist

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

Aim of the residency study program
To prepare a doctor specialist, universally educated, honest, initiative, self-sufficient but responsible ethically, creative, interested in science innovations, upholding democracy, able to solve problems and work in a team, having orthopaedist traumatologist professional qualification and able to apply acquired knowledge, skills and abilities in practical job, correspondent to Lithuanian Medicine Norm "Orthopaedist traumatologist. Rights, duties, competency, responsibility". To provide knowledge and skills in scientific research and public presentation of professional matters.

Program profile		
Disciplines/subject areas	Orientation of the program	Distinctive features of the residency study program
Program consists of obligatory and optional cycles including theory, practice and self-sustaining job. Required cycles focused on your orthopaedist traumatologist knowledge and skills deepening in urgent trauma, congenital and acquired musculoskeletal system trauma and musculoskeletal system diseases, clinical diagnosing skills, medical and surgical treatment skills and skills for development. To acquire other skills formed a separate cycles - radiology (radiology, computed tomography,	Applied orientation program, orientated to practical activity and developing abilities for scientific research work, providing orthopedist traumatologist professional qualification.	Unique orthopaedic traumatology residency program is based on theoretical studies and practical and scientific job integration. The program is designed according to 1.LR legislation, 2.European Parliament and Council Directive 2005/36/EC ; 3.European Union requirements for medical professionals orthopaedist traumatologist training (European Union of Medical Specialists . Charter on Training of Medical Specialists in the EU . Requirements for the specialty Orthopaedic surgeon . UEMS 2007th Available at: http://www.uems-

<p>nuclear magnetic resonance imaging, ultrasound, bone scintigraphy), anesthesia, emergency and acute pain management, general surgery. Selectable cycles for delving into one of the narrow scope and are grouped into two groups - I (first year residents) for abdominal injuries, head, face and jaw injuries cycles, II (III year residents) for shoulder arthroscopy, pelvic fracture osteosynthesis and external fixation principles cycles. Optional cycles are meant to inquire one particular field.</p>		<p>ortho.org/data/176.pdf);</p> <ol style="list-style-type: none"> 4. Cumming AD, Ross MT. The Tuning Project (medicine) - learning outcomes / competences for undergraduate medical education in Europe. Edinburgh: The University of Edinburgh, 2008. Available at: http://www.tuning-medicine.com 5. Bulajeva T., D. The transition, Šileikaitė - Kaishauri D. Curriculum Guide. Vilnius, 40 p., 2012 (prepared by the project of the European Credit Transfer and Accumulation System (ECTS) National Level: Credit harmonization and learning outcomes based education program design and implementation' (No. VP1 -2.2 - MES -08 -V -01-001). 6. 1990 Government Resolution No. 12 of 29. 389 residency training of doctors. 7. Minister of Health 2012 11 29 Order No. V -1080 the Lithuanian Medical Standard 147:2012 MN "orthopedist traumatologist. Rights, duties, competence and responsibility." 8. 2003 Government Resolution No. 10 of 31. 1359 "On the training of doctors." 9. Ministry of Education and Science and the Minister of Health 2004 06 17 Order No. ISAK-969/V-445 the Medical Residency, dentistry and veterinary medicine residency program requirements and residency bases of selection and assessment regulations. 10. KMU Rector 2003 05 23 Order No. 2848 -R for resident programming principles. 11. KMU Rector 2004 06 30 Order No. PS -8- 105- R for resident education organization. 12. KMU Rector 2004 12 06 Order No. V -419 on residency and internship bases for evaluation and selection. 13. KMUK General Director 2000 12 13 Order No. 444 resident physicians performing residency at the Clinics, regulations. 14. LR Ministry of Health Minister in 2004. June 28. Order No. V -469 "the medical practice of professional qualifications types List" 15. LR SAM Minister 2000-11-29 Order No. 657 "Orthopedics and Traumatology of child and adult services with special requirements. 16. The Minister of Health in 2000. 9 November. Order Nr.657 on Orthopedics and Traumatology of child and adult services of the special requirements of the amendment and supplement;
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Admission requirements	Recognition of previous learning
<p>Master degree in medicine and medical doctor professional qualification are obligatory. Admission by the way of general competition. Competitive score structure of is given in the conditions for entrance to the LUHS residency</p>	<p>Results of previous studies are accepted individually, taking into account the developed competencies and goals of program that correspond to „Orthopaedic traumatology“ residency study program, with the</p>

<p>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 orthopaedist traumatologist staff and residents representatives. Scientific activities in the field of orthopaedic traumatology as well as 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 organized if after the main admission free places are still available.</p>	<p>guidance of procedures set by LUHS Senate.</p>
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<p>Access to further education</p>
<p>Degree providing third cycle doctoral studies (are chosen by 5-10% with obtained orthopaedist traumatologist professional qualification). Third cycle degree studies may be an option (up to 10% choose to proceed to PhD).</p>

<p>Access to professional activities (employability)</p>
<p>Doctor with orthopaedic traumatology specialty can do practical job in state as well as in private health care institutions, which have a license to run orthopaedic and traumatology profile services, according to the license obtained in Lithuania or abroad, can seek a scientific degree in doctoral studies, do pedagogical job. Orthopaedist traumatologist license is given by the State Health Care Accreditation Agency under the Ministry of Health of the Republic of Lithuania, after submitting diploma of completed medical studies program, internship certificate and certificate of completed residency.</p>

<p>Learning and teaching approaches</p>	<p>Methods of assessment (of learning achievements)</p>
<p>Various teaching and studying methods are applied: lectures, seminars, consultations, group discussions together with doctors-residents, every-day activity logbook writing. Residents introduce patients in Orthopaedic traumatology departments corporate patients' considerations, in Lithuanian orthopaedic traumatology association conferences, annual residents scientific conferences, residents seminars, in Clinics doctors advanced training courses (supervised by residents or residency cycles managers). Resident in his/her logbook collects certificates or its' copies that prove these activities, if such documents are issued. Resident participates in scientific-practical conferences organized by Orthopaedic traumatology Clinics, Lithuanian Orthopaedic Traumatology Associations conferences and conferences organized by LUHS. There are conditions made for residents to participate in various approved teaching programs and courses where they go during the time free from studies or are send by the residency base manager (general director) according to the settled procedures.</p> <p>Learning and teaching includes formal teaching and work-based experiential learning. Formal teaching includes lectures&seminars, consultations, case presentations, journal clubs, grand rounds, clinical skills demonstration and teaching using simulators, research projects.</p> <p>Activities of independent self-directed learning may include reading, maintenance of personal portfolio (log-book, self-assessment, reflective learning, personal development plan), research projects, reading journals.</p>	<p>Resident assessment, according to LUHS Regulation on Student's Achievements Assessments (Decision by LUHS Senate, December 14th, 2012, No 25-07) consists of three assessment forms:</p> <p>Initial assessment. The goal of this assessment is to check resident's minimum obligatory preparation for the studies, to set initial level of resident's knowledge and (or) ability level for further study progress assessment; help professors choose study methods and (or) adjust study content while creating conditions for residents to reach prospective study cycle results more effectively. Usually initial assessment is done during the first year of residency studies. It consists of basic Orthopaedic traumatology knowledge test and test of equipment preparation for work. Basic theory knowledge, practical skills and abilities to master control is done at the beginning of the first year of residency studies. The scope of basic theory knowledge, practical skills and abilities to master are done by each clinic. The model order for obtaining and assessing basic theory knowledge, practical skills and abilities is given.</p> <p>Forming assessment. Forming assessment is applied during the residential studies seeking to assess critically and to adjust residents' learning. In these parts of the residency study program, where practical and social skills are important (problem solutions in problematic learning studies, practice, residency programs etc.) with the goal to assess general competencies the forming assessment is done by multisource feedback method (360 degree assessment and other methodology). The forming assessment consists of:</p>

<p>Skills and competences are acquired via their job as residents in Emergency Department, Neurology Department, other specialty departments, Outpatient Department; Head of the Department led word-rounds, personal word-rounds, Multi-disciplinary team meetings, licensed specialists led night shifts. Residents have supervised responsibility for the care of in-patients. This includes day-to-day review of clinical conditions, note keeping, and the initial management of the acutely ill patient with referral to and liaison with clinical colleagues as necessary.</p>	<p>a. Advanced assessment. During it resident is learning and is assessed taking into account special safeguard skills, needed for safety in orthopaedic traumatology;</p> <p>b. Credit. It is a forming assessment, done at the each year of studies. During it the course of each residential study year is summarized. Credit is multi-component. During these credits resident is assessed according to LUHS Regulation on Medicine Residency.</p> <p>Total assessment. This assessment summarizes knowledge obtained by resident. It is done at the end of residency studies by final residency exam.</p>
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General competencies (knowledge, abilities, values and attitudes)		Outcomes (results) of residency study program	
1.	Professional attributes	1.1	Be honest and honorable 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	Have ability to evaluate the boundaries of his/her competencies in orthopaedic traumatology, to act independently, if there is a need, seek for a help, solve problems and take decisions, communicate and work in a team with specialists from other fields, be able to organize work and to plan time properly.
3.	Doctor as an expert	3.1	To be able to analyze the orthopedics and trauma pathology symptoms and synthesize syndromes, continuous improve lifelong learning, to be able to apply theoretical knowledge in practice, to be able to transfer their knowledge and skills to younger colleagues, to be able to plan and carry out research.

Subject-specific competences (knowledge, abilities, values and attitudes)		Aims (results) of residency study program	
4.	Patient and/or relatives consultation	4.1	To be able to make an overall assessment of the patient, clarify and interpret pathological symptoms of orthopedic and trauma within the collection targeted history and interpret it to perform selective and targeted patient (and unconscious) testing, evaluating pain, injury severity, type of pathology, and to create a diagnosis.
		4.2	To be able to explain the patient (and his family) actions performed, to explain the changes found and discuss the next steps to reassure and motivate the patient.
5.	Patient's diagnostics and formation of treatment plan	5.1	To recognize conditions that have impact on trauma or/and require intensive treatment, to make a plan for necessary diagnostic tests, be able to interpret test results, to perform primary (complaints, anamnesis, total examination) and secondary (interpreting tests' results and planning, performing and interpreting complementary tests' results) differential diagnostics on patients symptoms reasons; to make a relevant treatment plan for an individual patient, to discuss it with a patient and/or his relatives, to be able to assess the adverse effects of the treatment efficiency..
		5.2	Ability to communicate with patient and his/her relatives in case of critical condition; to gain confidence and written agreement from informed person, communicate in writing (filling up medical documents), communicate with aggressive patient.
6.	Medical emergencies and resuscitation	6.1	Be able to recognize conditions that need emergency medical treatment, provide first aid, provide intensive care according to the valid recommendations, provide aid in case of trauma, have abilities to treat conditions that require emergency assistance. Be able to properly immobilize the injured limb, to assess pain and to provide pain management plan.
7.	Performing or requesting of appropriate investigations and interpretation of the results	7.1	To be able to perform urgent patient investigation (injury - ATLS), to assess the clinical and biochemical blood tests, to perform patient clinical examination (inspection, palpation, percussion, auscultation, etc.).
		7.2	To be able to assess the skull, neck, chest, spine, pelvis bones, limb bones, muscles, tendons, radiology (X-ray, CT, MRI, ultrasound) study, bone scintigraphy test data.
		7.3	To be able to perform joint ultrasound, diagnostic arthroscopy.
		7.4	To be able to perform joint puncture to perform the joint fluid examination.
		7.5	To be able to evaluate the burn area and depth.
8.	Conservative and surgical treatment plan. Procedures and prophylactics.	8.1	To be able to evaluate the indications and contraindications for the conservative treatment, prevention of potential complications, to be able to select proper immobilization (surgical aids) to determine treatment periods.

		8.2	To be able to evaluate the indications and contraindications for surgical treatment, prevent complications, to choose right surgical treatment methods, principles, establish surveillance and post-operative treatment plan, prevent possible complications, know outpatient rehabilitation and treatment principles and terminology.
		8.3	To be able to perform closed fracture reduction and immobilization, know the indications, contraindications and possible threats.
		8.4	To be able to provide medical treatment, to perform vein puncture and inject drugs.
9.	Surgical procedures, techniques, and procedures knowledge	9.1	To have knowledge and understand the general principles of operations.
		9.2	To have knowledge of fracture osteosynthesis.
		9.3	To have knowledge of soft tissues (tendons, muscles, and other structures) injuries and surgical principles.
		9.4	To have knowledge of intramedullary and external fixation principles
		9.5	To have knowledge of the foot, wrist, ankle, hand and small bone fractures osteosynthesis principles.
		9.6	To have knowledge and understand the principles of orthopedic surgeries.
		9.7	To have knowledge and understand the principles of arthroscopic surgery
		9.8	To have knowledge and understand the principles of joint replacement
		9.9	To have knowledge and understand the principles of purulent operations.
		9.10	To have knowledge of bone and soft tissue tumors of the surgical principles, treatment.
10.	Participation in preserving health, health promotion and encouragement	10.1	To be able to assess the risk of the patient's health and apply pragmatic and appropriate measures to mitigate this risk, apply infection control measures, to assess the professional actions of his own health risks and take steps to avoid the risk.
		10.2	Participate in wellness programs in population and individual level and in rehabilitation treatment programs.