

SPECIALTY TRAINING PROGRAM FOR CARDIAC SURGERY

| Title of the residency study program | State code |
|--------------------------------------|------------|
| Heart surgery | 733A30089 |

| Academic awarding institution | Language |
|---|------------|
| University of Health Sciences, Academy of Medicine, Clinic of Cardio-thoracic and Vascular surgery. A. Mickevičiaus str. 2, LT-44307 Kaunas | Lithuanian |

| Kind of studies | Cycle of studies | Level of qualification according to Lithuanian Qualification Structure (LKS) |
|--------------------|--------------------|--|
| University studies | Non-degree studies | Level VII |

| 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 | 8800 | 7375 | 1425 |

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

| Personal qualification awarded |
|--------------------------------|
| Cardiac surgeon |

| Study program director | Director's contact information |
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| Prof. dr. (HP) Juozas Sakalauskas | 8-37-326597 |

| Institution of accreditation | Accredited until |
|---|------------------|
| Centre for Quality Assessment in Higher Education | Year 2014 |

| Aim of residency program study |
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| Basic aim of heart surgery residency program is to prepare a specialist doctor having qualification of heart surgeon with interest in scientific innovations, reaching a higher scientific qualification studies |

| Program profile | | |
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| Disciplines/subject areas | Orientation of the program | Distinctive features of the residency study program |
| The program consists of mandatory and optional cycles, covering theory, practical work and self-employment. Required Cycles: 1. General and urgent surgery. 2. Trauma and orthopedic surgery. 3. Urology. 4. Burns, Plastic and Reconstructive Surgery. 5. Thoracic Surgery. 6. Intensive care and anesthesiology. | Applied program is focused on practical activities evolving research work and gives the doctor heart surgeon's professional qualification. | The program is designed according to the legislation of the Republic of Lithuania, the European Parliament and Council Directive 2005/36/EC, the European Union organized by medical professionals medical requirements for the preparation of Thoracic Surgeons (European Union of Medical Specialists, Division of General Thoracic Surgery: (http://www.uems.net/)). |

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| <p>7. Vascular Surgery. 8. Cardiopulmonary bypass, myocardial patronage, cardiac surgery, anesthesiology, preparation for heart surgery and post-operative nursing. 9. Interventional cardiology for cardiologists 10. Coronary artery disease and its surgical treatment. 11. Molecular Pathology. 12. Valvular pathology and its surgical treatment. 13. Congenital heart disease surgery. 14. Aortic disease, pericardial disease, cardiac tumors and their surgical treatment. Cardiac injury.</p> <p>Selectable cycles: 15. Heart transplantation and auxiliary blood circulation, heart accompanies system.</p> | | <p>The program is based on the theoretical study and practical integration of the first year of study. Practical skills are learned and absorbed in the theoretical course, under supervision of the University professors - residency database professionals. Heart surgery residency base - Lithuanian University of Health Sciences Clinic has all the structural units required for cardiac surgical pathology diagnosis and treatment. Residency Database is selected in university's medical residency Regulation. Scientific work skills schooled in the scientific work of the University of Cardiothoracic and Vascular Surgery, clinic or other University departments. The possibility of residency (up to one year) in selected foreign clinic.</p> |
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| Admission requirements | Recognition of previous learning |
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| <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 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 cardiac surgery staff and residents representatives. Scientific activities in the field of cardiac surgery as well as qualities of human being are evaluated. Motivation letter addressed to the Commission, provided one day before the scheduled motivational interview.</p> | <p>Results of previous studies are accepted individually, taking into account the developed competencies and goals of program that correspond to cardiac surgery residency study program, with the guidance of procedures set by LUHS Senate.</p> |

| Access to further education |
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| <p>Degree providing third cycle doctoral studies (are chosen by 10% with obtained cardiac surgery professional qualification).</p> |

| Access to professional activities (employability) |
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| <p>Doctor with cardiac surgery speciality can do practical job in state as well as in private health care institutions, which have a licence to run cardiac surgery profile services, according to the licence obtained in Lithuania or abroad, can seek a scientific degree in doctoral studies, do pedagogical job. Cardiac surgeon licence 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> |

| Learning and teaching approaches | Methods of assessment |
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| <p>Learning and teaching includes formal teaching and work-based experiential learning. Formal teaching includes lectures and 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>Participation in lectures, seminars, consulting activity and group discussions. Required, that during the annual lectures, seminars and group discussions at least 75% of the theoretical sessions of the topics would be covered. Allowed equalization report with the previous year resident or under individual schedule.</p> <p>Settlements and interpretation takes place at the end of each cycle. Payment writing test takes place in the form presented in open and closed-ended questions / tasks in the clinical situation. 10 point grading system.</p> |
| <p>Skills and competences are acquired via their job as residents in Emergency Department, other specialty departments, Outpatient Department; Head of the Department led word-rounds, personal word-rounds, Multi-disciplinary team meetings, licensed cardiac surgeons 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>Evaluation of continuous clinical work, diagnostic procedures.</p> <p>Evaluation of individual case studies on weekly visits signed by head of residency.</p> <p>Reviews (written in free form or questionnaire -based) of Residency Database staff (doctors and junior medical staff, other employees) on the activities of a resident physician working are recorded at end of each cycle.</p> <p>Practical skills and abilities gained in cycle are assessed by 10-point grading system, and recorded in the daily activity diary and residents credits book</p> <p>Literature review and clinical examination cases review is presented in morning medical conferences by individual schedule. Presentations are recorded in daily activity diary and approved by resident manager once every six months.</p> <p>Research work theme can be offered by same resident or the resident manager. Preliminary scientific subject, the subject matter and methods are discussed and approved in profiled clinic meeting. Research work and results are presented in Cardiothoracic and Vascular Surgery Clinic at the conference no later than one month before the final exam.</p> <p>Heart residency program concludes with the practical and theoretical examinations. The practical test takes place in the operating theatre. The theoretical test is 5 questions in writing form, discussing them orally after.</p> |

| General competencies (knowledge, abilities, values and attitudes) | | Outcomes (results) of residency study program | |
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| 1. | Professional attributes | 1.1 | Be fair, honorable, respect medical ethics, comply with good medical practice, be critical to other and his own, be able to sympathize, be creative and initiative. |

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| 2. | Professional activity | 2.1 | Be able to assess the limits of own jurisdiction, and, if necessary, seek help, act in new situations, conditions and adapt to them, act alone, solve problems and make decisions, communicate and work in team with other experts, be able to organize and plan. |
| 3. | Doctor as an expert | 3.1 | Be able to analyze and synthesize, seek for continuous improvement through learning, be able to apply theoretical knowledge in practice, be able to transfer knowledge and skills to others, be able to plan and carry out research. |

| Subject-specific competences (knowledge, abilities, values and attitudes) | | Aims (results) of residency study program | |
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| 4. | Consultation with a patient | 4.1 | Be able to make an overall assessment of the patient's somatics, analyze and interpret the thorax surgical pathology symptoms, collect history and interpret it, to perform selective and targeted patient (and unconscious) testing , to formulate cardiac surgical pathology diagnosis. |
| | | 4.2 | Be able to explain to the patient and/or his relatives a goal and a meaning for the actions taken to the patient, to discuss further actions, to reassure and to motivate patient and/or his relatives, to understand legal aspects regarding informing patient and/or his relatives. |
| 5. | Making a management plan | 5.1 | Recognize cardiac surgical pathology and to evaluate level of difficulty, to plan necessary diagnostic tests, to be able to interpret the results of studies carried out in primary (complaints , medical history , clinical examination) and secondary (when interpreting the results and planning , conduct and interpretation of further studies) causes the patient's symptoms differential diagnosis, to make treatment plan for an individual patient's and discuss it with the patient and his family, to be able to evaluate potential drug-drug interactions and possible side effects and the efficiency of treatment. |
| | | 5.2 | To be able to communicate with the patient and his relatives in the critically ill case, to be able to gain the trust, to communicate in writing (medical paperwork), to communicate with an aggressive patient. |
| 6. | Medical emergencies and resuscitation | 6.1 | To be able to recognize emergency requiring cardiac surgical pathology, do first aid under the existing guidelines. |
| 7. | Performing or requesting of appropriate investigations and interpretation of the results | 7.1 | To be able to perform diagnostic procedures (pericardial , pleural puncture and drainage).under heart surgery professional competence, to understand cytological, microbiological, histological material findings and to evaluate its clinical significance. |
| | | 7.2 | To be able to evaluate the ECG , ultrasound , coronarography data. To evaluate the radiological (X-ray, computed tomography, magnetic resonance imaging, etc.), radioisotope, ultrasound, bronchoscope tests. |
| 8. | Health promotion, engagement in population health issues and effective work in health care system | 8.1 | To be able to assess the risk of the patient's health and to apply appropriate measures to decrease this risk, to apply infection control measures, to assess the professional actions of his own health risks and take steps to avoid this risk. |
| | | 8.2 | Participate in wellness programs in population and individual level. |