
Course title: CLINICAL SKILLS LABS 4

ECTS credit allocation (and other scores): 1

Semester: spring

Level of study: ISCED-7 - second-cycle programmes (EQF-7)

Branch of science: Medical and health sciences

Language: English

Number of hours per semester: 30

Course coordinator/ Department and e-mail: Anna Zurada, MD PhD, email: anna.zurada@uwm.edu.pl

Type of classes: classes

Substantive content

CLASSES: Performing the correct 12-lead ECG recording. Interpreting the correct and uncorrect ECG recording. Ischemia and myocardial infarction in ECG recording. Cardiac arrhythmias (life-threatening bradyarrhythmias, ventricular and supraventricular tachyarrhythmias). Ultrasound anatomy of the organs and structures of the neck, abdomen and pelvis – review. Information reminder about preparation and positioning of the patient for US examination as well as types of ultrasound heads, transducer frequency and proper selection of the probe for the US examination. Normal values and norms in US examination of the structures and organs during neck, abdomen and pelvis examination. Types and methods of examinations in the neck (thyroid and salivary glands, vessels and lymphatic nodes) the most common pathologies and their differential diagnosis. US Doppler examination of the neck vessels. FAST and emergency US – how to do it. US techniques for abdominal and pelvic organs examination (liver, gallbladder, bile ducts, pancreas, spleen, intestine, kidney, urinary bladder, prostate and uterus). Abdominal vessels and retroperitoneal space US examination. Application of US examination in medicine the most common US signs and pathologies during examination and interpretation of the US images. Individual work of the student with the patient – assessment of professionalism, social competences and student-patient relationship. Basic principles and techniques of fine needle biopsy – presentation and student's individual work during biopsy.

LECTURES: -

Learning purpose: Upon completion of this module, the student should be able to: 1. understands clinical interpretations of the US anatomy and the most common pathology during US examination; 2. Understands the sonographic interrelationships between the structure of the organs of the head and neck, abdomen and pelvis taking into account the basics of ultrasound examination. The student should acquire and develop the basics and principles of ultrasound examination, taking into account topographic anatomy of the organs and structures of the neck, chest, abdomen and pelvis and interpret the ultrasound images. The student knows the basic symptoms and US signs and principles of differentiation of selected pathologies in US examination. The student can independently perform an US examination and visualize and assess structures and organs of the neck, abdomen and pelvis as well as interpret the most common pathologies. The student can also work in a group uses acquired skills and the available literature. The student is able to establish respectful contact with the patient, observing the principles of septic and antiseptic rules and the principles of professional behavior. The student knows the basic and principles and techniques of fine needle biopsy under US guidance, is able to perform a biopsy of the lesion under US image control. The student knows and improves the methods of recording and interpreting the ECG test, performs 12-lead ECG, is able to recognize and correctly interpret cardiac arrhythmias in emergencies, he recognizes the type and location of ischemic changes in the myocardium and selected ECG pathologies

On completion of the study programme the graduate will gain:

Knowledge: The student knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common internal diseases occurring in adults, and their complications. The student knows the structure of the human body on the basis of vital diagnostic tests, in particular x-rays, ultrasound images, computed tomography and MRI. The student knows the rules of performing ultrasound examination (USG) and the basic rules of fine-needle and core-needle biopsy. The student knows the issues of contemporary imaging studies. The student knows principles of professionalism in the workplace, as well as academic and social professionalism. The student knows the physical basics of non-invasive imaging methods.

Skills: The student knows how to perform basic medical procedures and treatments. The student assists during ultrasound examination, visualizes selected structures, interprets the obtained images and concludes about the presence of pathological changes

Social Competencies: The student observes and applies the principles of academic and professional ethics as well as maintaining a professional image, professionalism in the workplace, as well as academic and social professionalism. The student is aware of his own limitations and continuous training. The student is able to establish and maintain deep, respectful contact with the patient

Basic literature: 1) Berthold Block, Color Atlas of ultrasound anatomy, wyd. Thieme, 2011 ; 2) Steven M. Penny, Pocket Anatomy & Protocols for Abdominal Ultrasound, wyd. Wolters Kluwer Health, 2019 ; 3) Berthold Block, Abdominal Ultrasound: Step by Step. , wyd. Thieme, 2015 ; 4) John Christian Fox, Atlas for emergency ultrasound, wyd. Cambridge University Press, 2011

Supplementary literature: 1) Malcolm S. Thaler, The Only EKG Book You'll Ever Need, wyd. Wolters Kluwer, 2015 ; 2) John McCafferty, James M Forsyth, Point of Care Ultrasound Made Easy, wyd. CRC Press, 2020 ; 3) Sencha Alexander, Patrunov Yuri N. Thyroid , Ultrasound. From Simple to Complex, wyd. Springer, 2019

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 32

Student's independent work: 4