

**Course syllabus – part A**
Elective course - Pain Medicine**48SJ-ECPM****ECTS: 0.5****CYCLE: 2023Z****SUBJECT MATTER CONTENT****CLASSES**

1. Pain - historical outline. Brain structures associated with pain perception. Embryonic development of brain structures related to perception and pain conduction pathways. Types of pain: physiological and pathological; visceral pain, wall pain, reflected pain; acute pain, chronic pain. Pain receptors, conduction pathways, and their properties, and gating mechanism. 2. Physiology of pain. Mechanism of receptor and neuropathic pain. Mechanisms of sensitization (chronification) central and peripheral, acute and chronic pain. Modulation of pain sensation. The central pain suppression system. Importance of opioid peptides in pain suppression. Potential methods of monitoring pain transmission. 3. Introduction to the clinic. History and examination of the pain patient. Pain assessment scales and methods. Principles of pain treatment. Distinctions in children and the elderly. 4. groups of drugs. Interactions of pain medications. 5. Examples of the most common pain syndromes with a discussion of the treatment principles: neuralgias and discogenic pain. 6. psychology of pain and psychosomatic syndromes. Psychology of pain (placebo/nocebo). Antidepressants in the treatment of pain. 7. Non-pharmacological methods of treating pain. 8. discussion of clinical cases part 1. 9. discussion of clinical cases part 2. 10. Repetition of the most important issues and credit.

TEACHING OBJECTIVE

The purpose of education is for the student to acquire knowledge of basic terminology, anatomical, embryological and physiological basis in the generation and formation of pain, as well as to learn the principles of pain treatment: acute, postoperative, neuropathic, receptor pain. As a result of education, the student will understand the mechanisms of pain chronification, the pathophysiology of chronic pain syndromes, the interaction of analgesic drugs, and the possibilities of non-pharmacological pain treatment. In the course of education, the student will acquire the ability to use clinical scales for pain assessment, learn to apply the principles of the analgesic ladder, distinguish between types of pain and treatment according to the pathophysiology of pain.

DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY:**Symbols for outcomes related to the discipline:**

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Symbols for outcomes related to the field of study:

C.U14.+ , B.W20.+ , C.W36.+ , K.4.+ , G.W1.+ , D.W5.+ , E.U18.+ , B.W25.+ , F.W5.+ , D.W7.+ , E.W20.+ , E.W10.+ , E.U3.+ , K.2.+ , B.W17.+ , C.W38.+ , E.U1.+ , E.U4.+ , D.W9.+ , E.W29.+ , D.U5.+ , E.U2.+ , E.U19.+ , K.1.+ , D.U3.+

LEARNING OUTCOMES:**Knowledge:****Legal acts specifying learning outcomes:****3112022****Disciplines:** medical sciences**Status of the course:****Group of courses:****Code:** ISCED 0912**Field of study:** Medicine**Scope of education:****Profile of education:** General academic**Form of studies:** full-time**Level of studies:** uniform master's studies**Year/semester:** 5/9**Types of classes:** Classes**Number of hours in semester:** Classes: 20.00**Language of****instruction:** English**Introductory subject:**

anatomy, physiology, histology, embryology, neurology, psychology, pharmacology

Prerequisites: Students

should know human anatomy, physiology, histology, neurology, embryology, psychology, pharmacology.

Name of the organisational unit conducting the course: Katedra Rehabilitacji i

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Person responsible for the realization of the course: dr n.

med. Katarzyna Zaborowska-Sapeta

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Additional remarks:

Teacher's: Katarzyna Zaborowska-Sapeta MD, PhD, Jolanta Kiewisz PhD

- W1 – E.W29. Knows and understands the principles of pain management, including cancer pain and chronic pain
- W2 – B.W17. Knows and understands the ways of communication between cells and between the cell and the extracellular matrix and the signal transduction pathways in the cell, as well as examples of disorders in these processes leading to the development of cancer and other diseases.
- W3 – B.W20. Knows and understands the basics of excitation and conduction in the nervous system and higher nervous functions, as well as striated and smooth muscle physiology and blood functions.
- W4 – B.W25. Knows and understands the relationship between factors that disrupt the balance of biological processes and physiological and pathophysiological changes.
- W5 – C.W.36. Knows and understands the main mechanisms of action of drugs and their age-dependent transformations in the body.
- W6 – C.W.38. Knows and understands the basic principles of pharmacotherapy.
- W7 – D.W5. Knows and understands the principles and methods of communication with the patient and family to build an empathetic, trusting relationship.
- W8 – D.W7. Knows and understands the psychosocial consequences of hospitalization and chronic illness.
- W9 – D.W9. Knows and understands the basic psychological mechanisms of human functioning in health and disease.
- W10 – E.W10. Knows and understands the basic principles of pharmacotherapy of diseases of the elderly.
- W11 – E.W20. Knows and understands the symptoms of mental disorders in the course of somatic diseases, their impact on the course of the underlying disease and prognosis, and the principles of their treatment.
- W12 – F.W5. Knows and understands postoperative treatment with pain therapy and postoperative monitoring.
- W13 – G.W1. Knows and understands the methods of assessing the health status of an individual and population, various disease classification systems, and medical procedures

Skills:

- U1 – C.U14. Can select medications in appropriate doses to correct pathological phenomena in the body and individual organs.
- U2 – D.U3. Can choose treatment that minimizes social consequences for the patient.
- U3 – D.U5. Be able to interview an adult, child, and family patient using active listening techniques expressing empathy and talking to them with the patient about their life situation.
- U4 – E.U1. Be able to conduct a medical interview with an adult patient.
- U5 – E.U2. Be able to conduct a medical interview with a child and their family.
- U6 – E.U3. Can perform a complete and focused physical examination of an adult patient.
- U7 – E.U4. Can perform a physical examination of a child of any age.
- U8 – E.U18. Can propose individualization of existing therapeutic guidelines and other methods of treatment in the face of ineffectiveness or contraindications to standard therapy.
- U9 – E.U19. Be able to recognize symptoms of drug addiction and suggest treatment management.

Social competence:

- K1 – K.1 Is ready to establish and maintain deep and respectful contact with the patient, as well as to show understanding of worldview and cultural differences.
- K2 – K.2 Is willing to be guided by the welfare of the patient.
- K3 – K.4 Is ready to take action towards the patient based on ethical principles, with awareness of social conditions and limitations resulting from the disease.

TEACHING FORMS AND METHODS:

Classes(W1;W2;W3;W4;W5;W6;W7;W8;W9;W10;W11;W12;W13;U1;U2;U3;U4;U5;U6;U7;U8;U9;K1;K2;K3;);Classes will be held using multimedia presentations and discussion elements based on the principles of critical thinking. Clinical examples and discussion of cases will support theoretical knowledge.

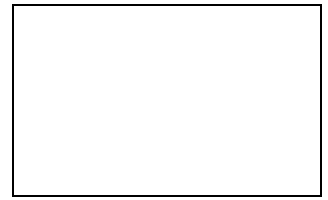
FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:

Classes (Colloquium test) - Final credit test. Attendance. -

BASIC LITERATURE:

1. Jerzy Wordliczek, Jan Dobrogowski, *Podręcznik: Leczenie bólu*, Wyd. PZWL, R. 2017

SUPPLEMENTARY LITERATURE:



Detailed description of ECTS credits awarded - part B

48SJ-ECPM

ECTS: 22.00

CYCLE: 2023Z

Elective course - Pain Medicine

The number of ECTS credits awarded consists of:

1. Contact hours with the academic teacher:

- participation in: Classes	20.0 h
- consultation	2.0
Total:	22.0 h.

2. Independent work of a student:

Total: 0 h

contact hours + independent work of a student Total: 22.0 h

1 ECTS credit = 25-30 h of an average student's work, number of ECTS credit = 22.0 h : 1 h/ECTS = 22.00 ECTS on average: 0.5 ECTS

- including the number of ECTS credits for contact hours with the direct participation of an academic teacher: 0,00 ECTS points,

- including the number of ECTS credits for hours of independent work of a student: