



## Emergency Medicine

<b>1. IMPRINT</b>	
<b>Academic Year</b>	2024/2025
<b>Department</b>	Faculty of Medicine and Dentistry
<b>Field of study</b>	English Dentistry Division
<b>Main scientific discipline</b>	Medical sciences
<b>Study Profile</b>	General Academic
<b>Level of studies</b>	Uniform MSc
<b>Form of studies</b>	Full time studies
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Completion
<b>Educational Unit / Educational Units</b>	Department of Internal Medicine and Cardiology Klinika Chorób Wewnętrznych i Kardiologii Lindleya 4, 02-005 Warsaw Tel: 22 502 11 44, e-mail:kchwk@wum.edu.pl

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<b>2. BASIC INFORMATION</b>			
<b>Year and semester of studies</b>	I year, I semester	<b>Number of ECTS credits</b>	2.00
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		9 (9 e-learning)	0,36
Seminar (S)			
Discussions (D)		21	0,84
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			

<b>Unassisted student's work</b>		
Preparation for classes and completions	20	0,8

<b>3. COURSE OBJECTIVES</b>	
C1	Skills of basic and advanced life support.
C1	Knowledge on diagnosis and treatment of acute diseases in common emergency situations.

#### 4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of effect of learning in accordance with standards of learning	Effects in time
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**Knowledge – Graduate\* knows and understands:**

E.W5.	basic methods of medical examination and the role of additional examinations in the diagnosis, monitoring, prognosis and prevention of organ and systemic disorders, with particular emphasis on their effects on oral tissues;
E.W8.	principles of managing patients with multiple organ injuries;
E.W9.	principles of organizing rescue operations in disasters and emergencies, phases of rescue operations, and the scope of assistance provided to the injured;
E.W12.	symptoms of acute abdominal diseases, poisoning, infection, and sepsis;
E.W25.	causes and mechanisms of cardiac and respiratory arrest, as well as principles of conducting resuscitation and post-resuscitation care;
E.W26.	life-threatening conditions;
E.W28	cases in which a patient should be referred to a hospital;

**Skills– Graduate\* is able to:**

E.U2.	communicate with the patient, assess, and describe the patient's somatic and psychological state by applying the principles of professional communication;
E.U8.	take the patient's history using the SAMPLE scheme (S - Symptoms, A - Allergies, M - Medications, P - Past medical history, L - Last meal, E - Events prior to injury/illness);
E.U9.	recognize the risk of life-threatening;
E.U10.	describe and recognise symptoms of shock and acute circulatory failure;

<b>5. ADDITIONAL EFFECTS OF LEARNING</b>	
<b>Number of effect of learning</b>	<b>Effects of learning in time</b>
<b>Knowledge – Graduate knows and understands:</b>	
K1	-
<b>Skills– Graduate is able to:</b>	
S1	-
<b>Social Competencies – Graduate is ready for:</b>	
SC1	-

<b>6. CLASSES</b>		
<b>Form of class</b>	<b>Class contents</b>	<b>Effects of Learning</b>
Lecture 1.	The role, tasks and principles of organizing emergency medicine. Emergency Alert Center. Legislative basics. During the lecture, the principles of organizing emergency medicine in Polish organizational and legal conditions will be discussed.	E.W25., E.W26., E.W28., E.U9., E.U10.
Lecture 2.	Emergency medical services, paramedical services and emergency medicine. During the lecture, the principles of emergency aid will be discussed. In addition, the scope of rescue activities in the event of a sudden threat to life or health for individual rescue services will be discussed (first aid, qualified first aid, medical rescue activities, emergency treatment) - authorizations to use them.	E.W9., E.W25., E.W26., E.W28., E.U9., E.U10.
Lecture 3.	Acute cardiac conditions. During the lecture, the student learns the definitions, etiopathogenesis, clinical picture, and natural course of acute cardiovascular diseases. Treatment in life-threatening situations related to cardiovascular diseases will be discussed.	E.W25., E.W26., E.W28., E.U9., E.U10.
Lecture 4.	Ethical and legal problems in emergency medicine – part 2 During the lecture, legal and ethical issues arising from the provision of medical services in life-threatening conditions will be discussed - continued.	E.W25., E.U9.
Lecture 5.	Environmental emergencies. Hypo-hyperthermia and others. During the lecture, the treatment of patients exposed to sudden environmental threats will be discussed. Treatment of hypo- and hyperthermia, poisoning and other environmental threats will also be discussed.	E.W5, E.W25., E.W26., E.W28., E.U9., E.U10.

**Załącznik nr 4A do Procedury opracowywania i okresowego przeglądu programów studiów  
(stanowiącej załącznik do zarządzenia nr 68/2024 Rektora WUM z dnia 18 kwietnia 2024 r.)**

Lecture 6.	Accidents, mass casualties, disasters - organization of rescue operations, medical triage. During the lecture, the rules of conduct in the event of mass accidents and disasters will be discussed. Practical considerations for proper triage of accident victims.	E.W9., E.W25., E.W26., E.W28., E.U8., E.U9., E.U10.
Lecture 7.	Fainting and syncope. Consciousness disorders in the dental office. Discussion of the principles and treatment of a patient with consciousness disorders, especially in the dental office. Discussion of the definitions of fainting, syncope and coma. Practical notes to facilitate management and diagnosis.	E.W5, E.W25., E.W26., E.W28., E.U9., E.U10.
Lecture 8.	Life- and health-threatening conditions in the pediatric population and related to pregnancy. During the lecture, the most important issues related to life-threatening conditions in the pediatric population and in pregnant women will be discussed. Differences in behavior in these groups of people will also be presented.	E.W5, E.W25., E.W26., E.W28., E.U9., E.U10.
Lecture 9.	Pharmacotherapy in life-threatening emergencies The lecture discusses the principles of pharmacotherapy during advanced life support procedures, including the conditions and methods of administering adrenaline, amiodarone and atropine. Drugs used in the event of a reversible cause of sudden cardiac arrest, such as pulmonary embolism or severe electrolyte disturbances, are discussed. Pharmacotherapy for shock, depending on its cause, is also presented.	E.W25., E.U9, E.U10
<i>Practical training 1</i>	Introduction to emergency medicine. Recognition and management of sudden cardiac arrhythmias. During the exercises, the ability to recognize first aid and the clinical implications of the most important cardiac arrhythmias will be discussed. Elements important in dental practice and emergency help in suspected heart rhythm disorders will be included.	E.W5, E.W25., E.W26, E.U2., E.U9, E.U10, E.W5
<i>Practical training 2</i>	principles of BLS resuscitation. Automatic external defibrillator. Fixed lateral position. Discussion of basic life support (BLS) procedures and the correct technique of performing them. Paying attention to the ability to recognize sudden cardiac arrest and return to a hemodynamically efficient rhythm. Presentation of the fixed lateral position and its importance in securing an unconscious person.	E.W5, E.W25., E.W26., E.U2., E.U10.
<i>Practical training 3</i>	Basics of ALS and resuscitation in cardiovascular diseases. During the exercise, advanced life support procedures (ALS) and the correct technique of performing them (defibrillation, pharmacotherapy, ventilation, therapeutic hypothermia, etc.) will be discussed. The typical scheme of resuscitation in cardiovascular diseases will be discussed.	E.W5, E.W25., E.W26., E.U10
<i>Practical training 4</i>	Sudden threats in respiratory diseases. Anaphylaxis. During the exercises, pre-hospital treatment of life-threatening conditions in respiratory diseases will be presented. First aid in anaphylaxis, anaphylactic shock, foreign body obstruction. The seminar takes into account the latest guidelines of the European Resuscitation Council.	E.W5, E.W26., E.W28., E.U2., E.U9.
<i>Practical training 5</i>	Resuscitation in special situations. Saving a drowning person. Burns. Electric shock or lightning. Epilepsy attack.	E.W5, E.W26, E.W28, E.U1, E.U9.

	During the seminar, students receive information about resuscitation in special situations. Rescuing a drowning person, a person electrocuted or struck by lightning, etc. is discussed. In addition, the seminar covers the management of an epileptic seizure.	
<i>Practical training 6</i>	Sudden life threats due to digestive system diseases During the exercises, symptoms related to life-threatening gastrointestinal diseases, including acute abdomen, will be discussed. Conditions requiring immediate medical assistance, as well as basic emergency procedures, will be presented.	E.W5, E.W8., E.W26., E.W28., E.U2., E.U9.
<i>Practical training 7</i>	Hypoglycemia and other acute endocrine life-threatening conditions. Neurological and psychiatric acute conditions. During the classes, the definition of hypoglycemia will be discussed. Attention will be paid to the multitude of symptoms of hypoglycemia. Medical treatment depending on the patient's condition will be discussed. Other selected acute endocrine conditions will also be discussed: thyroid crisis, hypometabolic crisis, adrenal crisis. During the exercises, acute symptoms indicating an acute neurological or psychiatric disease will also be discussed. The basic rules of conduct in the above-mentioned states will be presented.	E.W5, E.W26., E.W28., E.U2., E.U9.
<i>Practical training 8</i>	Treatment of injuries and poisonings. The exercises discuss injuries divided into blunt and penetrating, accidental and intentional, as well as threats depending on the location and extent of the injury. The basis for the management of a patient after an injury are resuscitation guidelines. If the patient is respiratory and circulatory, a detailed assessment should be carried out, i.e. visual inspection of the injury site. Additionally, the criteria for assessing the state of consciousness on the Glasgow Coma Scale were presented.	E.W5, E.W8., E.W8., E.W26., E.W28., E.U2., E.U8., E.U9.
<i>Practical training 9-13</i>	Exercises on mannequins, use of AED, choking, safe side position (including exercises in the Medical Simulation Center) – part 1. Exercises in the exercise room using mannequins, automatic external defibrillators and other equine equipment to save human health and life.	E.W5, E.W8., E.W25., E.W26., E.W28., E.U2., E.U9., E.U10., E.W5
<i>Practical training 14-18</i>	Exercises on mannequins, use of AED, choking, safe side position (including exercises in the Medical Simulation Center) – part 2. Exercises in the exercise room using mannequins, automatic external defibrillators and other equine equipment to save human health and life.	E.W5, E.W8., E.W25., E.W26., E.W28., E.U2., E.U9., E.U10.
<i>Practical training 19-21</i>	Exercises on mannequins, use of AED, choking, safe side position (including exercises in the Medical Simulation Center) – part 3. Exercises in the exercise room using mannequins, automatic external defibrillators and other equine equipment to save human health and life.  The final 10 minutes of the last class will be devoted to students completing the Class and Academic Teacher Assessment Survey.	E.W5, E.W8., E.W25., E.W26., E.W28., E.U2., E.U9., E.U10. E.W5

## 7. LITERATURE

### Obligatory

1. Textbook of Adult Emergency Medicine, George Jelinek, Anne-Maree Kelly, Anthony F. T. Brown
2. 2021 European Resuscitation Council Guidelines <https://www.cprguidelines.eu/>
3. In Polish: Wytuczne Europejskiej i Polskiej rady Resuscytacji z 2021 roku. [https://www.prc.krakow.pl/wytuczne\\_2021.html](https://www.prc.krakow.pl/wytuczne_2021.html)

4. In Polish: Podstawy resuscytacji oddechowo-kръżeniowej. Aktualny stan wiedzy. Pod redakcją D.A. Kosiora, T. Łazowskiego, P. Pruszczyka. Termedia 2016

**Supplementary**

Textbook of Paediatric Emergency Medicine, Peter Cameron, George Jelinek, Ian Everitt, Gary J. Browne, Jeremy Raftos

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
E.W5., E.W8. E.W9., E.W12, E.W25., E.W26., E.W28., E.U2., E.U8., E.U9., E.U10.	During classes, assistants check knowledge of the applicable material from indicated sources of knowledge and textbooks. On the last day of classes at the Clinic, there will be a test and grades will be awarded.	Attendance at all classes. Passing a test colloquium and assigning grades. The test consists of 7 single-choice questions (for 0 or 1 point) and 2 descriptive questions (for 0, 0.5, 1, 1.5 or 2 points). The maximum number of possible points to obtain is 11. Test colloquium grades: 0-6 points n/a (2.0) 6.5-7 points st(3.0) 7.5-8 points dgood (3.5) 8.5-9 points good (4.0) 9.5-10 points pgood (4.5) 10.5-11 points very good (5.0)

## 9. ADDITIONAL INFORMATION

Classes are held according to the schedule from the Dean's Office in the Clinic's seminar room (ul. Lindleya 4, pavilion 3, 2nd floor). Lectures in the lecture hall indicated in the plan from the Dean's Office or using the e-learning platform eWUM - lectures on the e-learning platform are not delivered live online, they are in the form of recorded videos that can be listened to at any time during classes. Confirmed listening to the lectures should take place before taking the final test. Listening to all lectures and attending all classes is obligatory. Absences require credit by completing the outstanding material with the teaching assistant, preparing a presentation on a given topic and/or making up classes with another group.

Credit for classes is based on attendance and a test colloquium, which takes place on the last day of classes in the training block at the Clinic. The final 10 minutes of the last class will be devoted to students completing the Class and Academic Assessment Survey. If you fail the final test, you must take a make-up test on the date agreed with the course coordinator. If the resit test is not passed, a board test with the participation of the Head of the Clinic is ordered.

The exercises are also held at the Medical Simulation Center according to the schedule from the Dean's Office (3a Adolfa Pawińskiego Street).

Before starting classes, students leave their outerwear in the clinic's student locker room. In case of unfavorable weather conditions, students are obliged to change their shoes. Aprons are not required.

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### ATTENTION

The final 10 minutes of the last class in the block/semester/year should be allocated to students' Survey of Evaluation of Classes and Academic Teachers