The problem of hospital acquired infections. Rational antibiotic therapy in physician practice.
Problem zakażeń szpitalnych. Racjonalna antybiotykoterapia w praktyce lekarza.

1. IMPRINT

Academic Year	2023/2024
Department	Faculty of Medicine
Field of study	Medicine
Main scientific discipline	Medical sciences
Study Profile	General academic
Level of studies	Uniform MSc
Form of studies	Full time studies
Type of module / course	Non-compulsory
Form of verification of learning outcomes	Credit
Educational Unit / Educational Units	Department of Medical Microbiology 5 Chałubińskiego Str, 02-004 Warsaw

Head of Educational Unit / Heads of Educational Units	Prof. Hanna Pituch Department of Medical Microbiology 5 Chałubińskiego Str., 02-004 Warsaw
Course coordinator	Beata Sokół-Leszczyńska, M. Sc., Ph. D. beata.sokol-leszczynska@wum.edu.pl
Person responsible for syllabus	Beata Sokół-Leszczyńska, M. Sc., Ph. D. beata.sokol-leszczynska@wum.edu.pl
Teachers	Piotr Leszczyński, MD., Ph.D., Beata Sokół-Leszczyńska, M. Sc., Ph.D.

2. BASIC INFORMATION

Year and semester of studies	I-V year, summer, and winter semester	**Number of ECTS credits**	2.00

FORMS OF CLASSES **Contacting hours with academic teacher**	**Number of hours**	**ECTS credits calculation**
Lecture (L)		
Seminar (S)	30 (e-learning)	2.00
Classes (C)		
e-learning (e-L)		
Practical classes (PC)		
Work placement (WP)		
Unassisted student's work		
Preparation for classes and completions	30	

3. COURSE OBJECTIVES

O1	Knows the definition of hospital infection, knows how to recognize, and correctly register
O2	Knows the risk factors and the specificity of infections in intensive care, surgical, neonatal departments, etc., can correctly use this information in the prevention of hospital infections in the above-mentioned departments
O3	Can correctly plan and implement patient isolation due to the probable or confirmed etiological factor of infection and the protective isolation of patients particularly vulnerable to infection

04	Knows the rules of personal protection against the most common infections and infections among health professionals and knows the rules of post-exposure procedures
05	Knows the rules of conducting an epidemiological investigation
06	Knows the importance of a microbiological laboratory in the control of hospital infections and knows the principles of cooperation between the attending physician and the head of the laboratory in this respect
07	Knows the importance of antibiotic policy and the impact of antibiotic therapy on the epidemiological situation of the hospital

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

Code and number of effect of learning in accordance with standa of learning	**Effects in time** *(in accordance with appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019)*
Knowledge – Graduate* knows and understands:	
G.K2. C.W33	Definitions of HAI, case definitions of HAI
G.K2.A.W21	Hospital acquired infections (HAI) and alarm pathogens;
G.K3.C.W3	The basics of the epidemiology of viral and bacterial infections, the ways of their spread in the human body;
G.K4.C.W36	The concept of community and hospital- acquired infections (HAI), microbial sources and reservoir in the environment, including the ways infections spread;
G.K5.C.W35, D.W51	Mechanism and prevention of HAI: blood infections, pneumonia, urinary tract infection, surgical site infection, diarrhoea
G.K6.C.W37,C.W34	Control systems, prevention, and management of HAI;
G.K7.B.W6	Determinants of control and prevention of HAI in various hospital wards, with ethological factors, in alert pathogens; with consideration of ethological factors, alert pathogens
G.K8.C.W7	Principles of aseptic and antiseptic procedures in nosocomial infections;
G.K9.C.W34	Risk factors principles of diagnosis, management, and prophylaxis of the most common bacterial and viral diseases
G.K1.U7	Cooperation in terms of optimization and rationalization of therapy, antibiotic stewardship
Skills– Graduate* is able to:	
G.S1.C.U1	Collect an appropriately selected type of biological material for testing
G.S2.C.U7	Design schemes of rational chemotherapy of infections, empirical and targeted
G.S3.E.U7	Cooperate with infection control team in terms of optimization and rationalization of therapy
G.S4.E.W34	Diagnose the HAI of the most common bacterial and viral diseases

G.S5.C.U44,C.U48	Implement standards of preventing nosocomial infections
G.S6.B.U5	Apply the principles of control and management of HAI
G.S7.C.U49	Apply self-protection measures, patients, and co-workers against infections
G.S8.B.U6	Plan and conduct staff education in the field of prevention and management of HAI

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

5. ADDITIONAL EFFECTS OF LEARNING *(non-compulsory)*

Number of effect of learning	Effects of learning in time
Knowledge – Graduate knows and understands:	
K1	
K2	
Skills– Graduate is able to:	
S1	
S2	
Social Competencies – Graduate is ready for:	
SC1	respect the rights of the patient;
SC2	demonstrate responsibility for improving qualifications and pass the knowledge on
SC3	critically analyse medical literature, including in English, and draw conclusions;

6. CLASSES

Form of class	Class contents	Effects of Learning
seminar	e-learning	G.K2.C.W33,G.K2.A.W21,G.K3.C.W3,G.K4.C.W36,G.K5.C.W35,D.W51,G.K6.C.W37,C.W34,G.K7.B.W6,G.K8.C.W7, G.K9.C.W34, G.S1.C.U1,G.S2.C.U7,G.S3.E.U7,G.S4.E.W34,G.S5.C.U44,C.U48,G.S6.B.U5,G.K1.U7 G.S7.C.U49, G.S8.B.U6, SC1-C3

7. LITERATURE

Obligatory

1. http://www.cdc.gov/hai - types of infection, guidelines, prevention, laboratory testing.

2. http://ec.europa.eu/health/ph_threats/com/docs/1589_2008_en.pdf - COMMISSION DECISION of 28/IV/2008 amending Decision 2002/253/EC laying down case definitions for reporting communicable diseases to the Community network under Decision No 2119/98/EC of the European Parliament and of the Council

3. http://who.int/gpsc/tools/Five_moments/en-five moments for hand hygiene

Supplementary

For students who speak Polish to the extent that they can understand a medical professional recommendation:

1. Recommendations for the diagnosis and treatment of infections

http://www.antybiotyki.edu.pl/szpitalna-polit-rekomendacje-diagnost.php

2. Act of December 5, 2008, on preventing and fighting infections and infectious diseases in humans (Dz. U. of 2008.234.1570) and its implementing legislations

8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
O1-O10, G.K1 - G.K10, G.S1 - G.S8, SC1 - SC1	In the field of knowledge, skills, and social competences - multiple-choice and true-false questions	>51%

9. ADDITIONAL INFORMATION

E-learning classes will be totally available on https://e-learning.wum.edu.pl/ platform from March 4th 2024, until June 2nd 2024.
The minimum number of students required to run the optional course is 20 people, maximum 50.

The scope of the course allows to understand the role of hospital infection control in modern medicine and the role of a specialist doctor-microbiologist in this field. The knowledge contained in the course materials is systematically updated based on sources such as ECDC (European Center for Disease Prevention and Control), CDC (Centers for Disease Control and Prevention, United States of America), PZH (National Institute of Hygiene, Poland) and key societies research centers operating in Poland. The practical knowledge gained during the course allows to understand the pathomechanism of the one of the most serious complications of providing health services, which are nosocomial infections, effectively prevent them and, in the event of their occurrence, actively combat them. For students who have not had contact with medical microbiology, it will be a good base for understanding the role of this field in modern medicine, systematizing, and extending knowledge before the exam. For students who have completed the 3rd year, it can be a source of materials to remind of the topic of nosocomial infection control and to update knowledge in this field as part of preparation for the profession.

A dozen or so lessons contain a set of slides with theoretical material and a set of questions placed in case descriptions included as an illustration of the problem. The course will end with a test consisting of 15 questions (single and multiple choice and true-false). Students can work at their own pace. The final test consists of 15 questions, consists of an individual set of questions for each student and will be available after completing all topics/lessons, but no later than by the last day of the course. There will be two attempts to take the test. The course ends with a certificate of completion.

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.