

**PRIVATE HIGHER EDUCATIONAL INSTITUTION
"INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE"
Department of Fundamental Disciplines**

WORKING PROGRAM OF EDUCATIONAL DISCIPLINE

" CLINICAL ASPECTS OF IMMUNOPROPHILAXIS "

LEVEL OF HIGHER EDUCATION Second (master's) level

DEGREE OF HIGHER EDUCATION Master's degree

BRANCH OF KNOWLEDGE 22 Healthcare

SPECIALTY 222 Medicine

Reviewed and approved
at the meeting of the Academic Council
Protocol No. 1, dated August 01, 2017

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Working program of educational discipline Clinical aspects of immunoprophylaxis for the preparation of applicants for higher education of the second (master's) level of higher education in the specialty 222 Medicine.

General information about the discipline.

The structure of educational discipline	Branch of knowledge, training direction, specialty, education level	Characteristics of educational discipline	
		Full-time education	
Credits ECTS – 2,0	Field of knowledge: 22 Healthcare		
Modules – 1	Specialty: 222 Medicine	Year of the education:	
		V	
		Semester	
The amount of hours - 60		IX	X
		Lectures	
		0 h.	
		Practical classes	
		30 h.	
		Self-education (individual work)	
		30 h.	
		Type of control: Current and final, exam	

The scope of the discipline is 60 hours, (3.0 ECTS credits), including 30 hours of practical classes, 30 hours of independent student work

General characteristics of the discipline - the discipline "Clinical aspects of immunoprophylaxis" is compiled in accordance with the Standard of Higher Education of Ukraine of the second (master's) level, field of knowledge 22 "Health Care", specialty 222 "Medicine", specialization(s) - doctor. The discipline is studied in the 5th year, the study of the discipline is aimed at improving knowledge and practical skills on immunoprophylaxis of infectious diseases.

The role and place of the discipline in the system of training specialists This discipline includes information on the relevance of immunoprophylaxis in the modern world, features of the organization and implementation of planned and post-contact immunoprophylaxis. In the process of studying the discipline, students acquire knowledge and skills in carrying out specific prevention according to an individual scheme. Students also gain knowledge of the basics of immunity and mechanisms of immunological response to foreign agents, including vaccination. The dynamic introduction of a large number of immunobiological drugs into health care practice requires knowledge about the properties of certain vaccines, their advantages and disadvantages, features of use, features of transportation and

storage. The organization and implementation of mass specific prevention is entrusted to public health departments and family doctors, therefore, knowledge of planned and emergency immunoprophylaxis, the algorithm of actions of medical workers during vaccination, its control and prevention of undesirable events after immunization is extremely important. Also, knowledge of the basics of immunology and immunoprophylaxis will be relevant when organizing preventive and anti-epidemic measures in foci of certain infectious diseases, to improve the epidemic situation and achieve a sustainable reduction in the incidence of certain infectious diseases (according to WHO recommendations), the elimination or eradication of certain infections and the preservation of public health .

Therefore, knowledge of immunoprophylaxis is extremely important for the successful implementation of the educational process and further work of a specialist at a high qualification level.

2. Purpose and tasks of the discipline

The purpose of studying the discipline "Clinical aspects of immunoprophylaxis" is to improve theoretical knowledge and practical skills on specific prevention of infectious diseases, organization and implementation of preventive vaccinations.

The main tasks of studying the discipline " Clinical aspects of immunoprophylaxis " are :

- Demonstrate awareness of the importance of immunoprophylaxis as one of the main means of preserving public health in the modern world;
- Demonstrate the ability to organize and conduct immunoprophylaxis;
- Demonstrate the ability to assess the state of human health, which requires specific prevention

According to the requirements of the discipline standard provides acquisition by students *competencies*:

- **Integral competence** - The ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, which involves conducting research and/or implementing innovations and is characterized by the complexity and uncertainty of conditions and requirements.

Teaching methods:

1. Methods of educational and cognitive activity (study and analysis of the main program sections of the discipline).
2. Methods of stimulating and motivating educational and cognitive activities (solving situational problems, performing interactive tasks, modeling the situation, etc.).
3. Methods of control (self-control, mutual control), correction (self-correction , mutual correction).
4. Methods of increasing the effectiveness of educational and cognitive activities (deepening knowledge through independent work and scientific work, "brainstorming", participation in the work of a scientific student circle, conferences, Olympiads, student scientific forums, etc.).

Teaching tools are presentations, video materials, methodical recommendations, notes, and situational tasks.

Prerequisites and corequisites of the discipline "Clinical aspects of immunoprophylaxis" is based on the knowledge gained by students in the study of other basic disciplines - epidemiology, medical biology, microbiology, virology and immunology, infectious diseases, histology, cytology

and embryology, human anatomy, normal and pathological physiology, pediatrics , biostatistics , social medicine and integrates with these disciplines; Together with this discipline, it is possible to study the discipline "Organization and implementation of immunoprophylaxis".

Learning outcomes.

As a result of studying the discipline, the student should

Know and be able to:

- Regulatory documents of Ukraine in the field of immunoprophylaxis;
- Scientific basis of immunoprophylaxis;
- Types of immunobiological drugs used to create artificial immunity;
- Immunoprophylaxis of certain infectious diseases;
- Types of plans and planning sequence of preventive and anti-epidemic measures;
- Carry out the selection of contingents that are subject to scheduled vaccination against mandatory infectious diseases;
- Fill out the necessary documentation accompanying the vaccination;
- Assess the presence of temporary or permanent contraindications to immunoprophylaxis;
- Predict the possibility of unwanted post-vaccinal events and complications and carry out their expert assessment and timely prevention of the occurrence of such events;
- Assess the effectiveness of immunoprophylaxis;
- Organize and carry out immunoprophylaxis in the population, including in the case of an unstable and unfavorable epidemic situation.

Content of the discipline

Topics of lectures

The curriculum does not include lectures.

Topics of practical classes

No s/p	Topic name	Number hours
1	Vaccination history. Strategic plans for immunoprophylaxis of certain infectious diseases as a basis for preserving public health. Elimination and eradication of certain infectious diseases, problems and prospects. Scientific foundations immunoprophylaxis . The concept of immunity , types immunity , factors born and acquired immunity _ Immune answer , species immune answers , stages immune answers _	6
2	Medical immunobiological drugs (MIBP) for the specific prevention of infectious diseases. Classification of MIBP, types of MIBP, their advantages and disadvantages. Vaccine safety. Features of manufacturing, transportation and storage of preparations for vaccination. The concept of "cold chain". MIBP for creating artificial active and artificial passive immunity _ Features application , technique of vaccination.	6

3	Organization and planning AND immunoprophylactic and infectious diseases. Calendar preventive vaccinations _ Features of vaccination against the most relevant infectious diseases (meningococcal infection, pneumococcal infection, viral hepatitis A, influenza, etc.) . Features of vaccination of persons with temporary contraindications and vaccination according to an individual scheme. Urgent prevention	6
4	Adverse post-vaccination events and complications, their detection, registration, investigation of adverse post-vaccination events and complications, causes and prevention. Protection of individual independent work. Balance .	6
Total hours of practical classes		30

Topics of laboratory classes

According to the curriculum, laboratory classes are not provided.

Independent work

No s/p	Topic name	Number hours
1	Preparation for practical classes – theoretical preparation and development of practical skills	3
2	Performance of individual independent work (presentation on the relevance and state of immunoprophylaxis of certain infectious diseases).	3
3	Relevance of immunoprophylaxis. Problems of overcoming the loss of trust of the population during vaccination.	3
4	Organization and implementation of planned and emergency specific prevention.	3
5.	Characteristics of medical immunobiological preparations.	3
6.	Rules of transportation and storage of medical immunobiological preparations.	3
7.	Organization and implementation of specific prophylaxis against smallpox, typhoid, viral hepatitis A, cholera, pneumococcal infection, meningococcal infection, influenza, oral viral infection, yellow fever, plague, rabies.	3
8.	Emergency specific prevention of rabies, tetanus, diphtheria, measles.	3
9.	Contraindications to vaccination. Vaccination of persons with impaired health.	3
10.	Preparation for the test	3
Total hours of independent student work		30

Current control (mastery of individual topics) is carried out in the form of an oral survey, discussion, testing, conversation of students on predetermined issues, in the form of presentations by students of higher education with reports when discussing educational issues in practical classes.

In order to evaluate the independent work of education seekers, an alternative option is offered (by choice): traditional types of tasks: writing a control paper, an essay and solving situational problems, solving problem situations, providing practical recommendations or creative types: preparing a multimedia presentation, studying educational literature, etc.

The final semester control in the discipline is a mandatory form of control of educational achievements of students of higher education. It is conducted orally. The terms of the final semester control are established by the schedule of the educational process, and the amount of educational material submitted for the final semester control is determined by the discipline program.

The total number of rating points for the study of the discipline per semester is calculated as the sum of the points obtained from the results of the current control and the points obtained from the results of the final semester control. The maximum number of points per semester is 200 points, the minimum is 120 points.

Control methods

1. Method of oral control of theoretical material (interview, discussion).
2. Methods of written control (answers to questions, problem solving, test control).
3. Methods of monitoring practical abilities and skills (solving situational problems, resolving problematic situations, providing practical recommendations).

Form of assessment of students' knowledge

The form of the final control of the success of training in the discipline is the assessment.

Assessment of current educational activity (PND)

It is conducted in accordance with the "Instructions for the evaluation of educational activities under the European credit transfer system for the organization of the educational process"

Table 2. Recalculation of the average grade for the current activity into a multi-point scale (for disciplines ending with credit)

4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale
5	200	4.22-4.23	169	3.45-3.46	138
4.97-4.99	199	4.19-4.21	168	3.42-3.44	137
4.95-4.96	198	4.17-4.18	167	3.4-3.41	136
4.92-4.94	197	4.14-4.16	166	3.37-3.39	135
4.9-4.91	196	4.12-4.13	165	3.35-3.36	134
4.87-4.89	195	4.09-4.11	164	3.32-3.34	133
4.85-4.86	194	4.07-4.08	163	3.3-3.31	132
4.82-4.84	193	4.04-4.06	162	3.27-3.29	131
4.8-4.81	192	4.02-4.03	161	3.25-3.26	130
4.77-4.79	191	3.99-4.01	160	3.22-3.24	129
4.75-4.76	190	3.97-3.98	159	3.2-3.21	128
4.72-4.74	189	3.94-3.96	158	3.17-3.19	127
4.7-4.71	188	3.92-3.93	157	3.15-3.16	126
4.67-4.69	187	3.89-3.91	156	3.12-3.14	125
4.65-4.66	186	3.87-3.88	155	3.1-3.11	124
4.62-4.64	185	3.84-3.86	154	3.07-3.09	123
4.6-4.61	184	3.82-3.83	153	3.05-3.06	122
4.57-4.59	183	3.79-3.81	152	3.02-3.04	121

4.54-4.56	182	3.77-3.78	151	3-3.01	120
4.52-4.53	181	3.74-3.76	150	Less than 3	Not enough
4.5-4.51	180	3.72-3.73	149		
4.47-4.49	179	3.7-3.71	148		
4.45-4.46	178	3.67-3.69	147		
4.42-4.44	177	3.65-3.66	146		
4.4-4.41	176	3.62-3.64	145		
4.37-4.39	175	3.6-3.61	144		
4.35-4.36	174	3.57-3.59	143		
4.32-4.34	173	3.55-3.56	142		
4.3-4.31	172	3.52-3.54	141		
4.27-4.29	171	3.5-3.51	140		
4.24-4.26	170	3.47-3.49	139		

**Correspondence of grades on a 200-point scale,
four-point (national) scale and ECT S scale**

Rating on a 200-point scale	Evaluation on the ECTS scale	Score for four-point (national) scale
180–200	A	Perfectly
160–179	B	Fine
150–159	C	Fine
130–149	D	Satisfactorily
120–129	E	Satisfactorily
Less than 120	F, Fx	Unsatisfactorily

A grade in the discipline is given only to students who have completed the curriculum in the discipline in full. Grades " F x " or " F " ("unsatisfactory") are issued to students who have not been enrolled in a discipline whose form of control is credit.

After completing the study of the discipline, the person responsible for the organization of educational and methodical work at the department or the teacher gives the student the appropriate grade according to the scales.

The list of questions for assessment:

1. Immunoprophylaxis, definition.
2. Vaccination history.
3. Global strategic plans for vaccination.
4. International immunization programs.
5. Expanded program of immunization, problems and challenges of modern times
6. Ways to overcome the " anti-vaccination campaign" in society and restore confidence in vaccination.
7. Legal aspects and bioethical problems of immunoprophylaxis.
8. The concept of elimination and eradication of certain infectious diseases.
9. Immunity, types of immunity.

10. Immune response, types, stages, dynamics of antibody formation.
11. Differences between primary and secondary immune responses.
12. The concept of antigens.
13. The concept of antibodies.
14. Vaccines, definition, classification.
15. Live vaccine, production method, advantages and disadvantages, examples.
16. Inactivated vaccine, production method, advantages and disadvantages, examples.
17. Chemical vaccine, manufacturing method, advantages and disadvantages, examples.
18. Recombinant vaccine, manufacturing method, advantages and disadvantages, examples.
19. Anatoxins, manufacturing method, advantages and disadvantages, examples.
20. Characteristics of promising types of vaccines.
21. Serum, production method, advantages and disadvantages, examples.
22. Immunoglobulins, production method, advantages and disadvantages, examples.
23. System of transportation, storage, use and accounting of medical immunobiological drugs.
24. Calendar of preventive vaccinations of Ukraine. Legal aspects of vaccine prevention.
25. Drawing up a plan for preventive vaccinations.
26. Completing accounting and reporting documentation regarding vaccinations.
27. Specific prevention of tuberculosis.
28. Specific prevention of diphtheria.
29. Specific prevention of tetanus.
30. Specific prevention of whooping cough.
31. Specific prevention of poliomyelitis.
32. Specific prevention of viral hepatitis B.
33. Specific prevention of hemophilic infection type b.
34. Specific prevention of measles.
35. Specific prevention of rubella.
36. Specific prevention of epidemic parotitis.
37. Specific prevention of certain infectious diseases (recommended).
38. Types of immunoprophylaxis (scheduled
39. Teminova post-contact specific prevention of tetanus.
40. Urgent post-contact specific prevention of rabies.
41. Urgent post-contact prevention of infections that have an epidemic spread in the country.
42. Evaluation of the effectiveness of immunoprophylaxis (epidemiological, clinical, immunological, economic).
43. General principles of prevention of adverse events after vaccination.
44. Contraindications to vaccination (temporary and permanent).

Approved:

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