ASSESSMENT FUND

of the discipline «Immunology»

Level of higher education

SPECIALTY

Field of study

31.05.01 - RF, 560001 -KR general medicine

2026

The assessment fund is intended for control of knowledge of students in the direction of training (specialty) «General medicine» on discipline «Immunology».

The fund of assessment tools has been reviewed and approved at a meeting of the structural unit—the Department of Hygiene, Epidemiology, and Microbiology.

Protocol №1 from 28.08. 2026y

The Head of Department

Hygiene, epidemiology and microbiology _____ d.m.s., professor

Kasumova R.O.

Developped by:

senior teacher _____ Alymkulova A.D

LIST OF COMPETENCES WITH INDICATION OF STAGES OF THEIR FORMATION IN THE PROCESS OF MASTERING A DISCIPLINE

Formed competencies	**Planned results of training in the discipline that characterizes the stages of formation of competences**	**Types of assessment tools/ section code in this document**
PC-4: Is capable and ready to conduct a pathophysiological analysis of clinical syndromes, to ubstantiate pathogenetically justified methods (principles) of diagnosis, treatment, rehabilitation and prevention among the population, taking in to account age and gender groups.	**Know:** -methods and techniques of collecting and analyzing patient's complaints, anamnesis data, indications and contraindications to carrying out supplementary additional -need for collecting andcomplaints, his anamnesis data; - aetiopathogenesis, clinical performance and diacrisis of major diseases; -indications and contraindications for choosing supplementary additional clinical and paraclinical diagnostic techniques. -analyzing patient's	
	Be able to: - collect and analyze patient's complaints, his anamnesis data; - put on laboratory assessments, clinical investigations, postmortem examinations and other testing for the purpose of state - conduct a survey, collect complaints and a history of the patient; - draw up a genealogy template for families with hereditary diseases;	

	- make an analyses of a clinical status; - determine indications and contraindications for choosing supplementary additional clinical and paraclinical diagnostic techniques; apply methods and techniques of medical examinations as well as diagnostic maneuvers.	
	Have a command - experience in collecting and analyzing patient'scomplaints, anamnesis data, interpreting the results of the routine methods of functional diagnostics used to detect the pathologies of blood,heart and vessels, lungs, kidneys, liver and other organs and systems; - skills in case history recording, prescribing necessary laboratory assessments and clinical investigations for the purpose of state identification, establishing facts of disease availability or lack; - experience in patients'examining, carrying out necessary diagnostic maneuvers;clinical exclusion - skills in developing	
PC-14: Capable and ready to make a diagnosis based on the results of biochemical and clinical studies, taking in to account the course of pathology in organs, systems and the body as a whole.	**Know:** - checklist and specification of accounting-and-reporting medical record in general care settings; -regulatory documentation accepted in healthcare, as well as records for assessing the	

	quality and performance efficacy of medical settings.	
	Be able to: - carry out medical and statistical analysis of contractual population health data; -keep medical records, including in electronic form.	
	Have a command of: -work experience and methods of keeping accounting-and-reporting medical records of various types in medical treatment facilities; - experience in comparative analyses of various types of medical records in medical treatment facilities.	
PC-16: Is able and ready to use an algorithm for making a diagnosis (main, concomitant, complications), taking in to account the ICD, and perform basic diagnostic measures to identify urgent and life-threatening conditions.	**Know:** - key focuses of medical and statistical indicators in the context of evidentiary medicine; - basic principles and quality assessment procedures of health care delivery using medical and statistical indicators	
	Be able to: - analyze medical and statistical indicators and their interpretation; - use medical and statistical indicators to assess the quality of the medical care provided; - assess the quality of the medical care provided	

	statistical indicators in compliance with evidence-based medicine	
	Have a command of: - basic skills of working with medical and statistical indicators; experience in expressing and reasoning a proprietary position regarding the quality of the medical care provided on the basis of medical and statistical indicators in compliance with evidence-based medicine; - a set of actions to assess the quality of the medical care provided on the basis of medical and statistical indicators.	

APPENDIX 2

Tests for basic and clinical Immunology

1. A secondary lymphoid organ is
   - a. TLR
   - b. bacterial flagellin
   - c. tonsils
   - d. C-reactive protein
2. One of the pathogen-associated molecular pattern is
   - a. TLR
   - b. bacterial flagellin
   - c. tonsil
   - d. C-reactive protein
3. Antimicrobial peptides is(are)
   - a. defensins and cathelicidins
   - b. unmethylated DNA, ss RNA
   - c. SALT
   - d. C-reactive protein
4. The cell of the following cell types that is called a Kupfer cell when in the liver is
   - a. neutrophil
   - b. T or B lymphocyte
   - c. macrophage
   - d. NK cell
5. A pathogen associated molecular pattern is(are)
   - a. defensins and cathelicidins
   - b. Unmethylated DNA, ss RNA
   - c. SALT
   - d. C-reactive protein
6. Which of the following is involved in a humoral immune response?
   - a. neutrophil
   - b. B lymphocyte
   - c. macrophage
   - d. NK cell
   - e. T cells
7. An acute phase reactant involved in cardiac risk measurements is(are)
   - a. defensins and cathelicidins
   - b. unmethylated DNA, ss RNA
   - c. SALT
   - d. C-reactive protein
8. CD19, 20, 21 are on these cells
   - a. macrophage
   - b. B cells
   - c. T cells
   - d. dendritic cells
9. Which one of these does not belong?
   - a. Kupfer cells
   - b. histiocytes
   - c. alveolar macrophages

- d. dendritic cells

10. CD11c+ cells are
- a. macrophage
- b. B cells
- c. T cells
- d. dendritic cells

11. A pattern recognition receptor is(are)
- a. defensins and cathelicidins
- b. unmethylated DNA, ss RNA
- c. SALT
- d. toll-like receptor

12. Apoptosis, also known as programmed cell death occurs when
- a. the cell receives certain signals and then sends perforins to kill neighboring cells
- b. the cell receives certain signals and digests its own DNA
- c. the cell receives certain signals and digests its own membrane
- d. none of the above

13. Which of the following cells kills tumor cells and virally infected cells, not antigen specific, uses perforins
- a. neutrophil
- b. B lymphocyte
- c. macrophage
- d. NK cell

14. The innate immune system uses
- a. PRR to recognize PAMP
- b. PAMP to recognize PRR
- c. PAMP to recognize surface mannose
- d. surface mannose to recognize lectins on the bacteria

15. Which of the following has a polymorphic nucleus
- a. neutrophil
- b. B lymphocyte
- c. macrophage
- d. NK cell
- e. T cells

16. The process by which macrophage and neutrophils squeeze through the intact blood vessel is
- a. opsonization
- b. diapedesis
- c. chemotaxis
- d. phagocytosis

17. An acute phase reactant is
- a. TLR
- b. bacterial flagellin
- c. tonsil
- d. C-reactive protein

18. An antigen-specific cell is a
- a. neutrophil
- b. T or B lymphocyte
- c. macrophage
- d. NK cell

19. The first cell at the site of an infection is a(n)
- a. neutrophil
- b. T or B lymphocyte
- c. macrophage

- d. NK cell

20. When treated with IL-2, this cell becomes an LAK cell.
- a. neutrophil
- b. T or B lymphocyte
- c. macrophage
- d. NK cell

21. A secondary lymphoid organ is(are)
- a. defensins and cathelicidins
- b. unmethylated DNA, ss RNA
- c. SALT
- d. C-reactive protein

22. A lectin is a
- a. molecule that binds to neutrophils
- b. molecule that binds lipids
- c. molecule that binds carbohydrates
- d. a molecule that causes apoptosis

23. Each of the 12 types of these binds a different PAMP.
- a. TLR
- b. bacterial flagellin
- c. tonsil
- d. C-reactive protein

24. The phagocytic cell that does not arrive first at the site of a chronic infection is the
- a. neutrophil
- b. B lymphocyte
- c. macrophage
- d. NK cell
- e. T cell

25. A phagocytic cell is a(n)
- a. platelet
- b. T or B lymphocyte
- c. macrophage
- d. NK cell

26. The cell of the following cells that has a specific regulatory subset is a
- a. neutrophil
- b. B lymphocyte
- c. macrophage
- d. T cell

27. Which cell is very active in antigen presentation?
- a. dendritic cells
- b. T cells
- c. epithelial cells
- d. LAK cells

28. Which statement is correct?
- a. Serum is formed after blood is allow to clot.
- b. Serum is formed in blood after anticoagulants have been added.
- c. Plasma is formed after blood is allowed to clot.
- d. Clotting factors are no longer in plasma.

29. CD 56+, CD 16+, and CD3- are markers used to characterize–
- a. a macrophage
- b. an NK cell
- c. a dendritic cell
- d. an eosinophil

30. All the cells are effectors except:

A. T-cytotoxic.

B. NK-cell.

C. Plasma cell.

D. T-helper.

E. None of above

31. How many types of the immune globulines do you know?

A. 6.

B. 3.

C. 4.

D. 5.

E. 2.

32. All the markers are of T-cells except:

A. CD4.

B. CD8.

C. CD3.

D. CD19.

E. None of above

33. What type of immunoglobulins has the most important role in case of acute respiratory infection?

A. IgA.

B. IgM.

C. IgG.

D. IgD.

E. IgE

34. What is the function of plasma cells?

A. participation in immune cooperation.

B. immunoglobulin production.

C. IFN production.

D. participation in neoplasia control.

E. immunosuppression.

35. What is the function of NK-cells?

A. participation in immune cooperation.

B. immunoglobulin production.

C. IFN production.

D. participation in neoplasia control

E. immunosuppression.

36. What class of immunoglobulin increases in case of helmint invasion?

A. IgA.

B. IgM.

C. IgG.

D. IgD

E. IgE.

37. What class of immunoglobulin can go through placenta?

A. IgA.

B. IgM.

C. IgG.
D. IgD.
E. IgE.
38. All the medicines could be useful in case of anaphylactic reactions except:
A. epinephrine
B. diphenhydramine
C. zaditen
D. dobutamine
E. betametason
39. AIDS is caused by a human retrovirus that kills
A. B lymphocytes
B. lymphocyte stem cells
C. CD4-positive T lymphocytes
D. CD8-positive T lymphocytes
E. None of above
40. The least likely recurrent infection caused by primary immune deficiency is:
a. Recurrent otitis media
b. Recurrent bacterial skin infection
c. Recurrent bacterial pneumonia
d. Recurrent osteomyelitis
e. Recurrent urinary tract infection
41. Which one is considered as a characteristic of transient hypogammaglobulinemia of infancy (THI)?
a. Normal IgG
b. Normal IgM
c. Normal IgA
d. Normal IgD
42. Which one is the most likely diagnosis of an 18 year old female who presents with a history of recurrent sinopulmonary infection, low IgG and IgA and ITP?
a. X-linked agammaglobulinemia
b. Severe combined immunodeficiency
c. Common variable immunodeficiency
d. Ataxia-telangiectasia
e. Cystic fibrosis
43. A 7 month old infant with a history of failure to thrive, recurrent oral candidiasis, and Pneumocystis carinii pneumonia is being evaluated. Which of the following is the least useful diagnostic test?
a. Immunoglobulin levels and functional antibody
b. Enumeration of T cells and lymphocyte proliferation assay
c. Anti-HIV antibody
d. Delayed type hypersensitivity skin test
e. Nitroblue tetrazolium test and phagocytic tests
44. A mother brings her son, a 6 year old boy with severe eczema, recurrent bacteria skin infections and history of staphylococcal pneumonia for evaluation of immunodeficiency. Initial tests reveal normal CBC and platelets, 50,000 IU of IgE, normal IgG, IgM and IgA levels. Which one is the most likely diagnosis?
a. Atopic dermatitis
b. Wiskott-Aldrich Syndrome

c. Hyper-IgE syndrome

d. Chronic granulomatous disease

e. Leukocyte adhesion defect

45. Which one is a true association of a primary immune deficiency and an abnormal hematologic finding?

a. Leukocyte adhesion defect and thrombocytopenia.

b. Hyper-IgM syndrome and neutropenia.

c. Wiskott-Aldrich syndrome and gigantic platelets.

d. Chronic granulomatous disease and large cytoplasmic granules in PMNs.

e. Hyper-IgE syndrome and mastocytosis.

46. Which one is the characteristic infection in patients with terminal complement (C5-C9) deficiency?

a. MRSA

b. Pneumocystis carinii

c. Meningococcus

d. Catalase-positive organisms

e. Herpes viruses

47. A contraindicated vaccine in an isolated IgA deficiency patient is:

a. OPV

b. Varicella

c. Influenza

d. MMR

e. None of the above

48. IVIG replacement is indicated in all of the following, except:

a. X-linked agammaglobulinemia (XLA)

b. X-linked hyper-IgM syndrome

c. Chronic granulomatous disease (CGD)

d. Wiskott-Aldrich syndrome (WAS)

e. Common variable immunodeficiency

49. PCP prophylaxis with trimethoprim-sulfamethoxazole is recommended in:

a. X-linked agammaglobulinemia (XLA)

b. X-linked hyper-IgM syndrome

c. Chronic granulomatous disease (CGD)

d. Wiskott-Aldrich syndrome (WAS)

e. Hyper-IgE syndrome

50. Development of Lyel's Syndrome is caused by:

A. anaphylactic type of allergic reaction
B. hyperresponsiveness of delayed type
C. cyto-toxic type of allergic reaction
D. immuno-complex type of allergic reaction

51. In the base of pathogenesis of serum disease is:

A. anaphylactic type of allergic reaction
B. hyperresponsiveness of delayed type
C. cyto-toxic type of allergic reaction
D. immuno-complex type of allergic reaction

52. Risk factors of medication side effect:

A. intolerance of medications in anamnesis
B. simultaneous assignment of two or more medications from the one group
C.simultaneous assignment of two or more medications from different groups excluding their interaction
D. all of the above

53. What nosology is accompanied by necrosis of epidermis surface?
    A. Lyel's Syndrome
    B. Syndrome of Stivens-Jonson
    C. toxico-allergic dermatitis
    D. varicella
54. What condition is always accompanied by toxic damage of CNS:
    A. serum disease
    B. Syndrome of Stivens-Jonson
    C. Lyel's Syndrome
    D. eczema
55. For treatment of allergy it is used everything except:
    A. adrenaline
    B. eufilin
    C. diphenhydramine
    D. paracetamol
56. The most effective drug for anaphylactic shock is:
    A. adrenaline, dopamine
    B. calcium chloride
    C. penicillin
57. Allergic reaction of immediate type:
    A. anaphylactic shock
    B. nettle rash
    C. Lyel's Syndrome
    D. Syndrome of Stivens-Jonson
58. Allergic reaction of delayed type:
    A. serum disease
    B. nettle rash
    C. acute vascular purpura
    D. anaphylactic shock
59. Bullous damage of skin and mucosa is typical for:
    A. Lyel's Syndrome
    B. Syndrome of Stivens-Jonson
    C. multiform exudative erythema
    D. candidiasis
60. Lyel's Syndrome appears after:
    A. taking antibiotics of penicillin group
    B. taking non-narcotic analgetics, more often pyrazolone group
    C. taking sulfanilamide, more often of prolonged forms
    D. all of the above
61. Catarrhal or mattery keratoconjunctivitis is typical for:
    A. Lyel's Syndrome
    B. Syndrome of Stivens-Jonson
    C.syndrome of Guillian - Barre
    D.Lime's syndrome
62. There are infective-allergic syndromes:
    A. syndrome of Landry
    B. Syndrome of Stivens-Jonson
    C. syndrome of Lyel
    D. syndrome of Guillian - Barre
63. Clinics of hyperresponsiveness of delayed type is caused by action of:
    A. hystamine
    B. kinins
    C. prostaglandins
    D. catheholamine
64. There are hyperresponsiveness reactions of immediate type except:
    A. nettle rash
    B. asthma
    C. anaphylaxia
    D. serum disease

65. In the base of pathogenesis of anaphylactic shock there is:
    A. immune-complex type of allergic reaction
    B. cyto-toxic type of immune reaction
    C. hyperresponsiveness of delayed type
    D. anaphylactic type of allergic reaction
66. Syndrome of Lyel is caused by:
    A. anaphylactic type of allergic reaction
    B. hyperresponsiveness of delayed type
    C. cyto-toxic type of allergic reaction
    D. immune-complex type of allergic reaction
67. It is typical for **S**yndrome of Stivens-Jonson
    A. acute start, febrile fever
    B. catarrhal or mattery keratoconjunctivitis
    C. development of dehydration shock
    D. erosive damage of mucous
68. Emergency in anaphylactic shock:
    A. to stop introduction of medication which cause anaphylactic reaction
    B. to cut away at the injection site by 1 ml 0,1% adrenalin
    C. glucocorticosteroids - intravenously by stream infusion, then by drop infusion
    D. all of the above
69. Clinic features of serum disease:
    A. it appears after taking medication suddenly
    B. it's developed in 1-3 weeks after taking medications
    C. nettle rash or macular –popular rash
    D. bullous polymorphous exudative erythema
70. Complications of anaphylactic shock:
    A. vasogenic shock
    B. DIS
    C. cerebral and pulmonary edema,
    D. all of the above
71. After the test for penicillin patient felt pain in chest, labored breathing, loss of consciousness. What is your diagnosis?
    A. anaphylactic shock
    B. Arthus phenomenon
    C.thrombembolia of pulmonary artery
    D. infectious-toxic shock
71. It is assigned in anaphylactic shock to enter medicine:
    A. Dopamine, adrenalin, glucocorticosteroids
    B. Glucose
    C. antihistamines
    D. antibiotics
72. Development of pain and toxic-allergic shock is typical for:
    A. serum disease
    B. eczema
    C. Syndrome of Lyel
    D. Syndrome of Guillian - Barre
73. Allergic reaction of immediate type is:
    A. anaphylactic shock
    B. serum disease
    C. Syndrome of Lyel
    D. Syndrome of Stivens-Jonson
74. Disease accompanied by toxic damage of CNS:
    A. serum disease
    B. Syndrome of Stivens-Jonson
    C. Syndrome of Lyel
    D. eczema
75. Hyperresponsiveness reaction of delayed type is:
    A. acute vascular purpura
    B. nettle rash

C. anaphylactic shock
D. serum disease

76. Syndrome of Lyel appears after taking medications:
A. antibiotics of penicillin group
B. analgetics
C. sulfanilamides
D. all of the above

77. What nosology is accompanied by necrosis of epidermis surfaces:
A. Syndrome of Lyel
B. Syndrome of Stivens-Jonson
C. toxic-allergic dermatitis
D. varicella

78. Erosive-helcoid damages of mucous of different organs are typical for:
A. Syndrome of Guillian - Barre
B. Syndrome of Lime
C. Syndrome of Lyel
D. Syndrome of Stivens-Jonson

79. It is typical for serum disease:
A. beginning in 1-3 weeks after taking medication
B. nettle-rash or macular –popular rash, Quincke's disease
C. arthralgia and myalgia
D. all of the above

80. In the base of pathogenesis of Stivens-Jonson Syndrome:
A. allergic reaction of delayed type
B. allergic reaction of immediate type
C. cyto-toxic type of allergic reaction
D. immune-complex type of allergic reaction

81. Risk factors of side effects of medications are the following:
A. heavy allergological anamnesis
B. simultaneous assignment of two or more medications from the one group
C. simultaneous assignment of two or more medications from different groups excluding their interaction
D. all of the above

82. For treatment of allergy is used everything excluding:
A. adrenalin
B. diphenhydramine
C. hydrocortisone
D. paracetamol

83. The first treatment in anaphylactic shock:
A. dopamine
B. adrenalin
C. hydrocortisone
D. antibiotics

84. Treatment of Lyel's Syndrome:
A. glucocorticosteroids
B. detoxication therapy
C. antihistaminic
D. sulfanilamides

85. Hyperresponsiveness of delayed type is typical for:
A. anaphylactic shock
B. serum disease
C. acute vascular purpura
D. nettle rash

86. Hyperresponsiveness of immediate type is typical for:
A. anaphylactic shock
B. Syndrome of Lime
C. Syndrome of Stiven-Jonson
D. nettle-rash

87. What doesn't refer to infectious-allergic syndrome^
    A. Syndrome of Guillian-Barre
    B. Syndrome of Lime
    C. Syndrome of Lyel
    D. Syndrome of Stivens-Jons
88. Risk factors of side effects of medications are the following:
    A. allergological anamnesis record
    B. simultaneous assignment of two or more medications from the one group
    C. simultaneous assignment of two or more medications from different groups excluding their interaction
    D. all of the above
89. Clinics of hyperresponsiveness of immediate type is caused by the following factors:
    A. histamine
    B. kinin
    C. prostaglandin
    D. catecholamine
90. Clinics of hyperresponsiveness of delayed type is caused by the following factors:
    A. histamine
    B. kinin
    C. prostaglandin
    D. catecholamine
91. In anaphylactic shock it is injected intravenously:
    A. dopamine
    B. adrenalin
    C. glucocorticosteroids
    D. antibiotics
92. It is typical for Syndrome of Lyel:
    A. bullous damage of skin
    B. erosive-helcoid damage of mucous
    C. dehydrative shock
    D. addition of the secondary infection
93. It is typical for Syndrome of Stivens-Jonson:
    A. acute beginning
    B. febrile fever
    C. catarrhal keratoconcjunctivitis
    D. all of the above
94. For treatment of allergy is used everything except:
    A. adrenalin
    B. diphenylhydramine
    C. aminophylline
    D. paracetamol
95. Emergency in anaphylactic shock is:
    A. to stop introduction of medications
    B. to inject adrenalin solution
    C. to inject dopamine, adrenalin, prednisolone intravenously
    D. all of the above
96. What nosology is accompanied by necrosis of epidermis surfaces:
    A. Syndrome of Lyel
    B. Syndrome of Stivens-Jonson
    C. toxic-allergic dermatitis
    D. varicella
97. In the base of serum disease pathogenesis is:
    A. anaphylactic type of allergic reaction
    B. hyperresponsiveness of delayed type
    C. cyto-toxic type of allergic reaction
    D. immune-complex type of allergic reaction
98. Development of Lyel's Syndrome is caused by:
    A. anaphylactic type of allergic reaction
    B. hyperresponsiveness of delayed type

C. cyto-toxic type of allergic reaction
D. immune-complex type of allergic reaction

99. Risk factors of side effects of medications are the following:
A. allergological anamnesis record
B. simultaneous assignment of two or more medications from the one group
C simultaneous assignment of two or more medications from different groups excluding their interaction
D. all of the above
100. What nosology is accompanied by necrosis of epidermis surfaces:
A. Syndrome of Lyel
B. Syndrome of Stivens-Jonson
C. toxic-allergic dermatitis
D. varicella
101. It is everything used for treatment of allergy except:
A. adrenalin
B. diphenylhydramine
C. hydrocortisone
D. paracetamol
102. The most effective medication for the treatment of anaphylactic shock is:
A. adrenalin, dopamine
B. penicillin
C. antihistaminic
D. calcium chloride
103. Everything refers to the reaction of responsiveness of delayed type except:
A. nettle-rash
B. asthma
C. anaphylaxia
D. serum disease
104. Clinics of hyperresponsiveness of immediate type is caused by many factors except:
A. catecholamine
B. histamine
C. kinin
D. prostaglandin
105. Complications of anaphylactic shock:
A. cardiovascular insufficiency
B. cerebral edema
C. DIC
D. all of the above
106. It is typical for Lyel's Syndrome:
A. epidermal necrolysis
B. erosive-helcoid damage of mucous
C. bacterial complications
D. dehydration shock
107. Infection-allergic syndromes are:
A. Syndrome of Guilline - Barre
B. Syndrome of Lyel
C. Syndrome of Stivens-Jonson
D. Syndrome of Lime
108. After the test for penicillin patient felt pain in chest, labored breathing, loss of consciousness. What is your diagnosis?
A. anaphylactic shock
B. Arthus phenomenon
C.thrombembolia of pulmonary artery
D. infectious-toxic

APPENDIX 3

Scale of evaluation

Examination (theoretical questions) (midterm)
«85-100%» • deep and durable learning themes of the module;
• complete, consistent, competent and logically presented answers to questions;
• reproduction of educational material on the themes of the module with the desired high degree of accuracy.
«75-84%»
• the presence of minor errors in the presentation of the material of the module;
• demonstration of the students knowledge of the completed the program;
• clear presentation of training material.
«60-74%»
• the presence of significant errors in the responses on module;
• demonstration to students is not enough knowledge on the program;
• not a clear presentation of educational material in the answer.

«less than 60%»
• no knowledge of materials topics;
• a serious mistakes in answers.

Control work of «Introduction to immunology. Types of immunity and nonspecific factors of immune reactivity»
0-59% - 0-4 points rating of "poor»
60-74% - 5-6 points rating of "satisfactory»
75-84% - 7-8 points rating of "good»
85-100% - 9-10 points rating of "excellent»

Control work of «Organization and function of the immune system. Evaluation of the immune system »
0-59% - 0-4 points rating of "poor»
60-74% - 5-6 points rating of "satisfactory»
75-84% - 7-8 points rating of "good»
85-100% - 9-10 points rating of "excellent»

Control work of «Clinical immunology »
0-59% - 0-4 points rating of "poor»
60-74% - 5-6 points rating of "satisfactory»
75-84% - 7-8 points rating of "good»
85-100% - 9-10 points rating of "excellent»

SCALE of EVALUATION of the PRESENTATION (the current control)

№ p/p	Name of the indicator	Mark (in %)
PRESENTATION		70
1	Cover sheet with title	0-4
2	Design of slides and use of additional effects (slide transitions, sound, drawings)	0-10
3	The text of the presentation write a short, well-formed and ideas are clear and structured 0-40	0-40
4	Slides presented in a logical sequence	0-10

5	Slides printed	0-06
REPORT		30
1	The correctness and accuracy of speech while protecting	0-12
2	Breadth of vision (answers to questions)	0-10
3	The implementation of the rules	0-8

During the presentation
0-59% - 0-7 points, a rating of "poor»
60-74% - 8-9 points, a rating of "satisfactory»
75-84% - 10-11 points, a rating of "good»
85-100% - 12-13 points, a rating of "excellent»

SCALE OF ASSESSMENT OF FRONTAL SURVEY TEST (current control)

1. In one test task 20 questions.
2. The questions are given ready-made answers to choose from, one correct and the others wrong.
3. For each correct answer – 5%.
4. Overall rating is defined as the amount of accumulated interest.
5. Scoring % is translated into points.

At testing: 0-59% - (0-11 correct answers), it is 0-7 points, a rating of "poor»
60-74% - (12 to 14 correct answers), it is 8-9 a rating of "satisfactory»
75-84% - (15-17 correct answers), it is 10-11 a rating of "good»
85-100% - (18-20 correct answers), it is 12-13 a rating of "excellent»

SCALE OF ASSESSMENT OF ORAL TEST
(intermediate control – "KNOW»)

(offset in the VII semester) When assessing oral answers to the test level of training to KNOW used the following criteria:

1. Knowledge of the basic processes of the studied subject area, depth and completeness of disclosure of the issue.
2. Ability to solve situational problems, making inferences and generalizations, to give reasoned answers.
3. Possession of a monological speech, the consistency of the answer, ability to answer questions, to express their opinion on the problem.

SCALE OF ASSESSMENT AN ORAL TEST "TO KNOW»
(credit in III semester)

In assessing the oral responses to the test of the level of learning to KNOW taken into account following criterion:

1. Knowledge of the main processes of the studied subject area, depth and completeness of disclosure question's.
2. Ability to solve situational problems, to draw conclusions and generalizations, to give reasoned answers.
3. Possession of monologic speech, logic and sequence of the answer, ability to answer on the questions posed, to Express their opinion on the problem under discussion.

85-100% (16-20 points) estimated answer that shows solid knowledge the content of the subject of epidemiology; patterns of spread of infectious diseases among the population; the basic laws of the epidemic process; anti-epidemic and preventive measures for prevention and localization of infectious foci diseases; epidemiological features of infections of the respiratory tract, gastrointestinal tract, blood and external covers, as well as anthroponoses, zoonoses, and sapronoses; methods epidemiological analysis of infectious diseases.

75-84% (10-15 points) estimated response, revealing a strong knowledge of the content the subject of epidemiology; the legal framework of public health; biomedical statistics; regularities of the spread of infectious diseases among population; the basic laws of the epidemic process; anti-epidemic and

preventive measures for prevention and localization of infectious foci diseases; epidemiological features of infections of the respiratory tract, gastrointestinal tract, blood and external covers, as well as anthroponoses, zoonoses, and sapronoses; methods epidemiological analysis of infectious diseases; consistency and consistency answer's. However, one or two inaccuracies in the answer are allowed.

60-74% (5-10 points) evaluates the response, indicating mainly about the basic knowledge of the subject of epidemiology; patterns of the spread of infectious diseases among population; the basic laws of the epidemic process; anti-epidemic and preventive measures for prevention and localization of infectious foci diseases; epidemiological features of infections of the respiratory tract, gastrointestinal tract, blood and external covers, as well as anthroponoses, zoonoses, and sapronoses; methods epidemiological analysis of infectious diseases. Several errors are allowed in the content of the answer.

0-59% (1-4 points) estimated response, detecting ignorance of the subject of epidemiology; regularities of the spread of infectious diseases among the population; basic laws development of the epidemic process; anti-epidemic and preventive measures prevention and localization of foci of infectious diseases; epidemiological features anthroponoses, zoonoses and sapronoses; inability to give reasoned answers, weak possession of monologue speech, lack of logic and consistency. Allow serious errors in the content of the answer.

SCALE of ASSESSMENT of PRACTICAL TASKS "to be ABLE to OWN»
(credit in VII semester)

When assessing the answers to the test of the level of training to be ABLE and OWN are taken into account following criterion:

85-100% (8-10 points) estimated response in which the student is able to plan and carry out anti-epidemic measures in the foci of infectious diseases; sanitary and educational work among the population; analyze infectious diseases to establish the "territory, time and risk contingent" and to identify the "risk factors";
methods of epidemiological analysis of infectious diseases; ability to work with the population on the prevention of diseases and instilling sanitary and hygienic skills. Demonstrates full understanding of the problem. All requirements for the task done.

75-84% (4-7 points) estimated response in which the student is able to plan and conduct student anti-epidemic measures in the foci of infectious diseases; to carry out sanitary and educational work among the population; to analyze infectious diseases. morbidity to establish "territory, time and risk profile" and to identify " factors risk"; has the technique of epidemiological analysis of infectious diseases; ability
work with the population on the prevention of diseases and instilling sanitary and hygienic skills'.
Demonstrates a significant understanding of the problem. Most of the requirements, presented to the task completed.

60-74% (1-3 points) estimated response in which the student is not able to plan and the student is able to plan and carry out anti-epidemic actions in the centers infectious diseases; carry out sanitary and educational work among the population; to analyze the incidence of infectious disease to establish "territory, time and contingent risk" and identifying "risk factors"; not sufficiently good command of the technique epidemiological analysis of infectious diseases; not well-versed work with the population on the prevention of diseases and instilling sanitary and hygienic skills proficient in. Demonstrates partial or small understanding of the problem. Many of the requirements, the requirements for assignment are not met.

0-59% (0 points) is estimated the answer at which the student demonstrates misunderstanding problems or no answer and there was not even an attempt to solve the problem

APPENDIX 4

The planning sheet of discipline

Discipline Immunology
Field of study/specialization Diff. credits
Course/semester 2 / 3
Credit units (CU) 3

Title of module according to WPD	**Type of control**	**Forms of control**	**Minimal credit points**	**Maximal credit points**		**Week of control**
Module 1						
Introduction to immunology. Types of immunity and nonspecific factors of immune reactivity	Formative assessment	Activity, attendance, lecture notes, performance and presentation of lab works, individual work with tables, discussion of situational tasks	8	13		**4 weeks**
	Midterm examination	Evaluation test	5	10		
Module 2						
Organization and function of the immune system. Evaluation of the immune system	Formative assessment	Activity, attendance, lecture notes, performance and presentation of lab works, individual work with tables, discussion of situational tasks	8	13		**9 weeks**
	Midterm examination	Evaluation test	5	10		
Module 3						
Clinical immunology	Formative assessment	Activity, attendance, lecture notes, performance and presentation of lab works, individual work with tables, discussion of situational tasks	9	14		**15 weeks**
	Midterm examination	Evaluation test	5	10		
Total			40	70		**16 weeks**
Midpoint assessment			20	30		
Summative assessment			60	100		