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# MINISTRY OF HEALTH OF UKRAINE.

ODESSA NATIONAL MEDICAL UNIVERSITY.

Medical faculty

Department of infectious diseases



STUDENT'S GUIDELINES on study discipline:

International faculty, 4th year Infectious diseases
Content module 2

# Approved:

Meeting of the Department of Infectious Diseases

Odessa National Medical University

Protocol No. 1 of 29.08.2024

Head of the Department of Infectious Diseases

Tetiana CHABAN

# Teacher(s)

Chaban T.V. PhD. Doctor of Sciences, professor, head of the department.

Associate professors: candidate of medical science Usychenko K.M., Pavlenko

O.V., Gerasymenko O.A., N.V. Movlyanova

Assistants: Bocharov V.M., Verba N.V.

#### Practical class No. 2

**Topic No 5:** "Meningeal syndrome in the clinic of infectious diseases. Meningococcal infection" -2 hours

#### Goal:

Improve students' knowledge of etiology, epidemiology, pathogenesis, clinical manifestations of meningococcal infection; to develop professional skills in drawing up an examination plan (laboratory and instrumental), a comprehensive plan for the treatment of the patient and the necessary preventive measures.

**Basic concepts:** meningeal syndrome, meningococcal infection, meningism, serous and purulent meningitis, secondary meningitis.

**Equipment:** illustrative material, tables, thematic patients.

#### Plan:

- 1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the class, motivation of applicants of higher education to study the topic).
- 2. Control of the reference level of knowledge is carried out by the method of frontal survey. To control the reference level of knowledge with a student of higher education must know the answers to the questions.
  - Pathogenesis of meningeal syndrome
  - Etiology, epidemiology, pathogenesis of meningococcal infection.
  - Classification of clinical forms of meningococcal infection.
  - Main clinical manifestations of meningococcal nasopharyngitis.
  - Main manifestations and clinical forms of meningococcemia.
  - Complications of meningococcemia.
  - Main clinical manifestations of meningococcal meningitis and meningoencephalitis.
  - Complications of meningococcal meningitis and meningoencephalitis.
  - The main causes of mortality in generalized forms of meningococcal infection.
  - Examination plan for a patient with meningococcal infection.
  - Methods of specific diagnosis of meningococcal infection. Etiotropic therapy of various forms of meningococcal infection: drugs, doses, routes of administration, duration of treatment.
  - Sanitation of meningococcus bacteria carriers.
  - Principles of pathogenetic therapy of generalized forms of meningococcal infection.
  - Rules for discharge of convalescents from a hospital.

- Dispensary monitoring of convalescents.
- Measures in the center of meningococcal infection
- ITSH: definition, pathogenesis, classification, clinical and laboratory diagnosis, emergency care
- NNGM: definition, pathogenesis, classification, clinical and laboratory diagnosis, emergency care
- 3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

# Recommendations (instructions) for performing tasks

A student of higher education must:

- be able to communicate with a patient with meningococcal infection, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- conduct a physical examination of a patient with meningococcal infection and determine the main symptoms of the disease;
- prescribe a set of laboratory and instrumental tests for a patient with meningococcal infection and analyze the results obtained;
- carry out differential diagnosis and substantiate the clinical diagnosis of a patient with meningococcal infection;
- create a comprehensive treatment plan for a patient with meningococcal infection on the basis of a previous clinical diagnosis, observing relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- determine measures to prevent meningococcal infection;
- draw up the medical documentation of a patient with meningococcal infection;
- make a report on the results of the examination of a patient for meningococcal infection by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of establishing the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of prognosis and work capacity.

# Materials for the final stage of the practical class Situational task 1

Patient S., 32 years old, complains of general malaise, sore throat, headache, weakness. He has been ill for the 3rd day, the temperature these days is within 37.5-37.8°C. Objectively, the general condition is satisfactory. The skin is pale, there is no rash. Conjunctivitis, scleritis. Pronounced hyperemia of the mucous back wall of the pharynx with purulent "tracks". Moderately painful submandibular lymph nodes are palpated. No pathology was detected on the part of the internal organs.

1. Preliminary diagnosis.

- 2. Plan of diagnostics.
- 3. Plan of treatment.

#### Situational task 2

Patient K., 30 years old, a teacher by profession, was hospitalized in the clinic on the 2nd day of illness with a diagnosis of "influenza, hypertoxic form". The disease began violently with an increase in temperature to  $40 \square C$ . There was a sharp headache, vomiting, photophobia. The general condition is difficult, consciousness is confused. The skin is pale. Hemorrhagic star rash on the skin of the abdomen, buttocks and lower limbs. Pronounced rigidity of the muscles of the back of the head and Kernig's symptom. No pathology was detected on the part of the internal organs. During a spinal puncture under high pressure, a cloudy liquid with high neutrophilic pleocytosis was obtained - 47,200 in 1  $\mu$ l, protein - 2.64 g/l, Pandey's reaction ++++.

- 1. Preliminary diagnosis.
- 2. Plan of diagnostics.
- 3. Plan of treatment.

#### Situational task 3

Patient P., 32 years old, uses drugs intravenously, his condition is very serious, he is unconscious. According to his wife, he became acutely ill 2 days ago, when the body temperature rose to 39°C, a headache and vomiting appeared, on the 2nd day the temperature was 40.2°C, the pain increased, vomiting was repeated. In the evening, the condition worsened. The patient lost consciousness. Objectively: no contact, pronounced psychomotor excitement. The skin of the face and trunk is hyperemic, there is no rash. The mucous membrane of the lips is cyanotic. Frequent shallow breathing. Heart sounds are muffled, pulse 140 per minute, weak filling. Blood pressure - 140/95 mm Hg. Abdomen is soft, painless. Stiffness of the muscles of the back of the head. Positive symptoms of Kernig and Brudzinsky.

- 1. Preliminary diagnosis.
- 2. Plan of diagnostics.
- 3. Plan of treatment.

#### Situational task 4

An 11-year-old child on the fifth day from the beginning of the increase in parotid salivary glands - temperature up to 39°C, headache, vomiting up to 6 times a day.

- 1. Preliminary diagnosis.
- 2. Plan of diagnostics.
- 3. Plan of treatment.

#### Situational task 5

A 25-year-old patient complains of headache, pain in the eyeballs, vomiting, fever. Consciousness preserved, excited, temperature 38.9 OC. Pronounced sensory meningeal syndromes, Kernig's symptom. Tendon and abdominal reflexes are preserved and suppressed. The function of the cranial nerves is not disturbed. In the cerebrospinal fluid - lymphocytic cytosis.

- 1. Preliminary diagnosis.
- 2. Plan of diagnostics.
- 3. Plan of treatment.

# 1. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

2. List of recommended literature (main, additional, electronic information resources):

#### Main:

- 1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. —с. 221-228.
- **2.** CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary WKozarsky Phyllis. Oxford University Press, 2017. 704 pp.

### Additional:

- 1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. New York. 2017. P. 876-898.
- 2. Comprehensive Textbook of Infectious Disease: M. I. Sahadulla, S. A. Udman. 2rd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 835 p.
- **3.** Recognition and diagnosis of infectious diseases / Посібник для англомовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // Львів: ЛНМУ, 2018. 95 с.

### Electronic information resources:

- 1. www.who.int- World Health Organization
- 2. <a href="www.ama-assn.org">www.ama-assn.org</a>—American Medical Association /American Medical Association
- 3. www.dec.gov.ua/mtd/home/- State Expert Center of the Ministry of Health of Ukraine
- 4. <a href="http://bma.org.uk">http://bma.org.uk</a> British Medical Association
- 5. <a href="www.gmc-uk.org">www.gmc-uk.org</a>- General Medical Council (GMC)
- 6. <u>www.bundesaerztekammer.de</u>– German Medical Association
- 7. <a href="https://library.odmu.edu.ua/catalog/">https://library.odmu.edu.ua/catalog/</a>- Electronic catalog

#### Practical class No. 3

**Topic № 7**: "Diphtheria" - 2 hours

#### Goal:

Improve students' knowledge of etiology, epidemiology, pathogenesis, clinical manifestations of diphtheria; to develop professional skills in drawing up an examination plan (laboratory and instrumental), a comprehensive plan for the treatment of the patient and the necessary preventive measures.

# **Basic concepts:**

Diphtheria, true croup, serum sickness, anaphylactic shock

**Equipment:** illustrative material, tables, thematic patients

#### Plan:

- 1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the class, motivation of applicants of higher education to study the topic).
- 2. Control of the reference level of knowledge is carried out by the method of frontal survey. In order to control the reference level of knowledge, the student of higher education must know the answers to the questions.
  - Etiology, epidemiology of diphtheria.
  - The nature of immunity in diphtheria.
  - What organs are affected by diphtheria?
  - Classification of diphtheria.
  - What is combined diphtheria, give an example.
  - Classification of diphtheria croup.
  - In what diseases is false croup. Its differences from the real thing.
  - Features of laryngeal diphtheria films.
  - In which infectious diseases, in addition to diphtheria and tonsillitis, can the tonsils be damaged.
  - Name the main factors of aggression of the diphtheria bacillus.
  - The main links of the pathogenesis of diphtheria.
  - The mechanism of formation of specific films in diphtheria.
  - Clinic of general intoxication syndrome in diphtheria.
  - Clinic of localized membranous diphtheria of the tonsils.
  - Characteristic changes in the oropharynx in patients with localized diphtheria of the tonsils and lacunar angina. Specify the changes.
  - Features of the course of laryngeal diphtheria.
  - Specific laboratory diagnosis of diphtheria. Non-specific laboratory tests for diphtheria.

- List the complications that can occur with diphtheria
- Principles of treatment of diphtheria.
- Etiotropic therapy of diphtheria.
- Characteristics of emergency conditions in diphtheria.
- Rules for administration of anti-diphtheria serum.
- Prevention of diphtheria.
- What anti-epidemic measures are carried out in the center of diphtheria
- 3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

# Recommendations (instructions) for performing tasks

A student of higher education must:

- Collect complaints, life and disease anamnesis, epidemiological anamnesis of a diphtheria patient;
- conduct a physical examination of a diphtheria patient and determine the main symptoms of the disease;
- prescribe a complex of laboratory and instrumental studies of a patient with diphtheria and analyze the results obtained;
- carry out differential diagnosis and substantiate the clinical diagnosis of a diphtheria patient;
- to determine the tactics of providing emergency medical care in emergency situations in patients with diphtheria;
- to create a comprehensive plan for the treatment of a diphtheria patient based on a preliminary clinical diagnosis, observing relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- determine diphtheria prevention measures;
- draw up the medical documentation of a diphtheria patient;
- make a report on the results of the examination of a diphtheria patient by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of the prognosis and work capacity.

# Materials for the final stage of the practical class Situational task 1

Patient D. was brought to the reception department of the Central Hospital the night before due to high temperature, sore throat, and general weakness. Objectively: hyperemia, edema, cyanosis, mucous membrane of the left palatine tonsil, oro- and nasopharynx. The surface of the tonsils is covered with a dirty gray coating.

1. Preliminary diagnosis.

- 2. Diagnostic methods.
- 3. Principles of treatment.
- 4. Preventive measures in the center of infection.

### Situational task 2

The patient came to the doctor with complaints of a temperature rise to 37.8 °C, a moderate pain in the throat for 3 days. Objectively: the submandibular lymph nodes are enlarged up to 3 cm. The tonsils are hypertrophied, covered with a gray, smooth coating that extends to the tongue, anterior palatal arches.

- 1. Preliminary diagnosis.
- 2. Diagnostic methods.
- 3. Principles of treatment.

#### Situational task 3

Patient K., 27 years old, was admitted to the hospital on the 3rd day of illness with complaints of increased body temperature, headache, and sore throat. Objectively: The mucous membrane of the oropharynx is swollen, hyperemic, cyanotic. On the tonsils there are islands of dense, grayish plaques that do not go beyond their limits. Submandibular lymph nodes are enlarged, moderately painful.

- 1. Preliminary diagnosis.
- 2. Diagnostic methods.
- 3. Principles of treatment.

# 4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

# Main:

- 1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. —с. 366-386.
- **2.** CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary WKozarsky Phyllis. Oxford University Press, 2017. 704 pp.

### Additional:

- 1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. New York. 2017. P. 876-898.
- 2. Comprehensive Textbook of Infectious Disease : M. I. Sahadulla, S. A. Udman. 2rd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 835 p.

**3.** Recognition and diagnosis of infectious diseases / Посібник для англомовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // – Львів: ЛНМУ, 2018. – 95 с.

# Electronic information resources:

- 1. www.who.int- World Health Organization
- 2. <u>www.ama-assn.org-American Medical Association / American Medical Association</u>
- 3. <a href="www.dec.gov.ua/mtd/home/">www.dec.gov.ua/mtd/home/</a>- State Expert Center of the Ministry of Health of Ukraine
- 4. <a href="http://bma.org.uk">http://bma.org.uk</a> British Medical Association
- 5. <a href="www.gmc-uk.org">www.gmc-uk.org</a>- General Medical Council (GMC)
- 6. www.bundesaerztekammer.de- German Medical Association
- 7. <a href="https://library.odmu.edu.ua/catalog/">https://library.odmu.edu.ua/catalog/</a>- Electronic catalog

#### Practical class No. 4

**Topic № 8:** "Children's" droplet infections in adults" - 2 hours

#### Goal:

Improve students' knowledge of etiology, epidemiology, pathogenesis, clinical manifestations of "childhood" droplet infections in adults; to develop professional skills in drawing up an examination plan (laboratory and instrumental), a comprehensive plan for the treatment of the patient and the necessary preventive measures.

# **Basic concepts:**

"Children's" droplet infections in adults, measles, rubella, chicken pox, epidemic mumps.

**Equipment:** illustrative material, tables, thematic patients

#### Plan:

- 1. There are organizational activities (greetings, verification of those present, announcement of the topic, purpose of the class, motivation of applicants of higher education to study the topic).
- 2. Control of the reference level of knowledge is carried out by the method of frontal survey. To control the reference level of knowledge with a student of higher education must know the answers to the questions.
- Measles etiology, pathogen tropism
- Epidemiology of measles
- Pathogenesis of measles
- Clinical manifestations of measles during the typical course
- Pathogenesis, period of occurrence and clinical manifestations of measles complications
- Laboratory diagnosis of measles
- Principles of treatment of measles
- Discharge rules for measles patients
- Etiology of rubella, tropism of the pathogen
- Epidemiology of rubella
- Pathogenesis of rubella
- Clinical manifestations of rubella during the typical course
- Laboratory diagnosis of rubella
- Principles of rubella treatment
- Discharge rules for patients with rubella
- Prognosis, including the prognosis for the pregnant woman and the fetus

- Etiology of epidemic parotitis, tropism of the pathogen
- Epidemiology of epidemic parotitis
- Pathogenesis of epidemic parotitis
- Clinical manifestations of parotitis in the typical course
- Laboratory diagnosis of epidemic parotitis
- Principles of treatment of epidemic parotitis
- Rules for discharge of patients with epidemic parotitis
- Forecast of epidemic parotitis
- Principles of prevention of managed "childhood" infections, vaccination calendar
- Diagnosis and management tactics of patients with childhood infections in case of bacterial complications
- Tactics in case of urgent situations
- 3. Formation of professional abilities and skills (mastery of skills, conducting curation, determining the treatment scheme, conducting laboratory research, etc.).

# Recommendations (instructions) for performing tasks

A student of higher education must:

- to be able to communicate with patients with "childish" droplet infections in adults, collect complaints, life and disease history, epidemiological history, conduct a survey of organs and systems;
- conduct a physical examination of patients with "childhood" droplet infections and determine the main symptoms of the disease;
- prescribe a complex of laboratory and instrumental studies of patients with "childish" droplet infections in adults and analyze the results obtained;
- carry out differential diagnosis and justify the clinical diagnosis of patients with "childish" droplet infections in adults;
- to determine the tactics of providing emergency medical care in emergency situations in patients with "childhood" droplet infections;
- to create a comprehensive treatment plan for patients with "childhood" droplet infections based on a preliminary clinical diagnosis, observing relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- determine measures to prevent "children's" droplet infections;
- draw up medical documentation of patients with "childhood" droplet infections;
- make a report on the results of the examination of a patient with "childish" droplet infections by a team of students in the study group, an analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of prognosis and work capacity.

# Materials for the final stage of the practical class Situational task 1

A 17-year-old patient entered the clinic on the 3rd day of illness with a diagnosis of "parainfluenza, allergic dermatitis." He fell ill acutely with an increase in body temperature up to 39oC, weakness, sore throat. On the 2nd day of the illness, a supersedating barking cough appeared, abundant mucous secretions from the nose, cuts in the eyes. About: T- 38.8oC. The face is swollen, the eyelids are thickened. Scleritis, catarrhal conjunctivitis. Mucous discharge from the nose. A spotted papular rash on the skin of the neck and face. The mucous membrane of the oropharynx is brightly hyperemic, a small white enanthema near the lower corner teeth. Breathing is hard, isolated dry wheezes. Small submandibular and anterior cervical lymph nodes are palpated. Heart rate - 110 beats/min. Blood pressure - 100/70 mmHg. The stomach is soft. The liver and spleen are not enlarged.

- 1. Preliminary diagnosis.
- 2. Examination plan.
- 3. Treatment.

# Situational task 2

The patient is 17 years old, a student, lives in a dormitory. He came to the clinic on the 2nd day of illness with complaints of a rash on the body, minor malaise. The disease began acutely with a rise in temperature to 38°C, nasal congestion. On the same day, I noticed a rash. About: T - 37.3oC, slight weakness. Moderate conjunctival hyperemia, mucous secretions from the nose. The rash is small, on unchanged skin, mild hyperemia of the mucous membrane of the oropharynx. Painful posterior cervical and occipital lymph nodes are palpated. Pulse - 80 bpm, blood pressure - 110/70 mmHg. Abdominal organs and lungs were not found to be pathological. In the blood, leukopenia, relative lymphocytosis, 10% of plasma cells, erythrocyte sedimentation rate - 5 mm/h are noted.

- 1. Preliminary diagnosis.
- 2. Examination plan.
- 3. Treatment.

#### Situational task 3

An 18-year-old patient arrived on the 6th day of illness with complaints of weakness, dry mouth, and an increase in body temperature up to 39oC. The disease began acutely with an increase in body T to 38.5oC, weakness, painless swelling near the ears. Treatment consisted of aspirin and dry heat on the affected areas. The fever decreased, but on the 6th day of the illness, the body temperature rose again to 39oC, there was pain in the scrotum, nausea, twice - mushy stool.

About: During the examination - a slight increase in parotid glands, which are soft in consistency, T - 39oC. There are no pathological changes in the oropharynx. The abdomen is soft, sensitive in the epigastrium, the pulsation of the abdominal aorta is weakened. The right testicle is moderately enlarged, painful. No pathology was detected in other internal organs.

- 1. Preliminary diagnosis.
- 2. Examination plan.
- 3. Treatment

#### Situational task 4

Patient E., 18 years old, was admitted to the infectious disease department on the 3rd day of illness with complaints of dry mouth, fever, swelling of the parotid area on the right. In the hospital, he received tavegil, askorutin, locally dry heat. There were no noticeable positive dynamics. On the 7th day of the illness, against the background of persistent fever, pain appeared in the left testicle, which increased in size, and a growing headache appeared. About: the condition is difficult, conscious, adequate, a little inhibited. T body - 39.7os, skin without rash, pale. The face and neck are asymmetrical due to soft swelling of the painless right parotid gland. The tonsils are not enlarged, there are no plaques. The tones of the heart are sonorous, the rhythm is correct. The abdomen is soft, painful in the epigastrium upon palpation, the liver and spleen are not enlarged. Moderately pronounced stiffness of the occipital muscles, positive symptoms of Kernig and Brudzinsky. The left testicle is swollen, painful, the skin is hyperemic.

- 1. Preliminary diagnosis.
- 2. Examination plan.
- 3. Treatment.

#### Situational task 5

Patient A., 18 years old, became acutely ill, body T increased to 38.5 wasps, weakness, headache were noted. On the 3rd day, he noticed single elements of a spotted rash on the skin of his body and was hospitalized with a diagnosis of "rubella". During the examination: T of the body - 38.8os, the patient is lethargic, a little inhibited. On the skin of the hairy part of the head there are multiple vesicles, on the skin of the face, trunk, limbs - single vesicles and abundant spotted rash. Peripheral lymph nodes are not enlarged. The mucous membrane of the oropharynx is hyperemic, there are isolated erosions on the soft palate. Pulse 82 bpm, BP – 110/70 mmHg, heart sounds muffled, breathing vesicular, abdomen soft, painless, liver and spleen not enlarged, no meningeal signs. An. blood: Er. - 4.6\*1012/l, leuk. – 8.1\*109/l, p-6%, z-64%, l-25%, m-5%, ESR -10mm/h.

- 1. Preliminary diagnosis.
- 2. Examination plan.
- 3. Treatment.

### 4. Summary:

There are evaluation of the students, summing up, announcement of the topic of the next practical class.

5. List of recommended literature (main, additional, electronic information resources):

# Main:

- 1. Infectious diseases: Підручник для мед. ун-тів, інст., акад. Затверджено МОН і МОЗ / Голубовська О.А., Андрейчин М.А., Шкурба А.В.; за ред. О.А. Голубоської. К.: ВСВ «Медицина», 2018. —с. 180-192.
- **2.** CDC Yellow Book 2018: Health Information for International Travel \ Edited by Brunette Gary WKozarsky Phyllis. Oxford University Press, 2017. 704 pp.

### Additional:

- 1. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. New York. 2017. P. 876-898.
- 2. Comprehensive Textbook of Infectious Disease: M. I. Sahadulla, S. A. Udman. 2rd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 835 p.
- **3.** Recognition and diagnosis of infectious diseases / Посібник для англомовних студентів медичних вузів. М. Kryzhanska, O. Zubach, O. Vorozhbyt // Львів: ЛНМУ, 2018. 95 с.

### Electronic information resources:

- 1. www.who.int- World Health Organization
- 2. <a href="www.ama-assn.org">www.ama-assn.org</a>—American Medical Association /American Medical Association
- 3. <a href="https://www.dec.gov.ua/mtd/home/">www.dec.gov.ua/mtd/home/</a>- State Expert Center of the Ministry of Health of Ukraine
- 4. http://bma.org.uk- British Medical Association
- 5. www.gmc-uk.org- General Medical Council (GMC)
- 6. www.bundesaerztekammer.de- German Medical Association
- 7. <a href="https://library.odmu.edu.ua/catalog/">https://library.odmu.edu.ua/catalog/</a>- Electronic catalog

# The criteria of evaluation of the students on practical class

rating	criteria of evaluation
Excellent "5"	The student is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills during the examination of a patient and the interpretation of clinical, laboratory and instrumental research data, expresses his opinion on the topic of the class, demonstrates clinical thinking.
Good "4"	The applicant has a good command of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills during the examination of a patient and the interpretation of clinical, laboratory and instrumental research data with some errors, expresses his opinion on the topic of the class, demonstrates clinical thinking.
Satisfactory "3"	The acquirer does not have sufficient knowledge of the material, is unsure of participating in the discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data with significant errors.
Unsatisfactory "2"	The acquirer does not possess the material, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills during the examination of the patient and the interpretation of clinical, laboratory and instrumental research data.