

**HEALTH MINISTRY OF UKRAINE
Odesa National Medical University
Department of infectious diseases**



«APPROVED»
Vic-rector for scientific and pedagogical work,
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**WORK PROGRAM IN THE COURSE
«Viral infections associated with immunosuppression in the practice of a dentist»**

Level of higher education: second (master's)

Field of knowledge: 22 "Health care"

Specialty: 221 "Dentistry"

Educational and professional program: "Dentistry"

1. The Course Description:

| Indicators | Field of knowledge, Specialty, Level of higher education | Features of the academic discipline |
|--------------------|--|--|
| Total amount: | 22 Health care | <i>Full-time studies</i> |
| ECTS Credits: 3 | | <i>Elective course</i> |
| Hours: 90 | 222 Medicine | <i>Year of training: 4</i> |
| Content modules: 3 | The second (Master's) | <i>Semesters VII - VIII</i> |
| | | <i>Lectures (0 h.)</i> |
| | | <i>Seminars (0 h.)</i> |
| | | <i>Practical sessions (30 h.)</i> |
| | | <i>Labs (0 h.)</i> |
| | | <i>Self-study (60 h.)</i> |
| | | <i>Individual tasks (0 h.)</i> |
| | | <i>Form of final control – Credit test</i> |

2. Purpose and objectives of the course, competencies, program learning outcomes.

Purpose: In the general system of medical training, the elective course "Viral infections associated with immunosuppression in the practice of a dentist" occupies an important place. Mastering the knowledge of the discipline by a higher education student lays the foundation for the study of dentistry, which involves the integration of teaching with this discipline and the development of skills to apply knowledge of the differential diagnosis of viral infections associated with immunosuppression in the process of further education and professional activity. Particular attention in teaching the discipline is paid to the issues of early diagnosis, which helps to provide timely assistance to patients and refer them to a family doctor for prescription and prevention of the spread of the disease.

Formation of skills and abilities

- identify the main syndromes in viral infections;
- perform differential diagnosis and make a preliminary clinical diagnosis of viral infection;
- determine the clinical stages of viral infections;
- plan a patient's examination and interpret the results of examinations,
- determine the treatment tactics of patient management in viral infections;
- diagnose and provide emergency care for major emergency conditions;
- demonstrate the ability to maintain medical records for viral infections

The process of studying the discipline is aimed at forming elements of the following competencies:

Mastering skills:

Ability to solve typical and complex problems, including research and innovation in the field of medicine.

Ability to continue learning with a high degree of autonomy.

General (GC):

GC2 – Knowledge and understanding of the subject area and understanding of professional activity

GC7 – Ability to search, process and analyse information from various sources

GC8 – Ability to adapt and act in a new situation

Special (SC):

SC1 - Ability to collect medical information about the patient and analyse clinical data.

SC2 - Ability to interpret the results of laboratory and instrumental studies

SC3 - Ability to diagnose: determine preliminary, clinical, final, concomitant diagnosis, emergency conditions.

SC6 - Ability to determine the rational mode of work, rest, diet in patients in the treatment of diseases of organs and tissues of the oral cavity and maxillofacial region.

SC7 - Ability to determine the tactics of managing patients with diseases of the organs and tissues of the oral cavity and maxillofacial region with concomitant somatic diseases.

SC8 - Ability to perform medical and dental manipulations.

SC10 - Ability to organise and conduct medical evacuation measures.

SC13 - Ability to assess the impact of the environment on public health (individual, family, population).

SC14 - Ability to maintain regulatory medical records.

SC15 - Processing of state, social and medical information.

SC16 - Ability to organise and conduct rehabilitation and care for patients with diseases of the oral cavity and oral health care..

Program learning outcomes (PLO):

PLO2 - Collect information about the general condition of the patient, assess the psychomotor and physical development of the patient, the condition of the maxillofacial organs, evaluate information on the diagnosis based on the results of laboratory and instrumental studies (according to the list 5)

PLO3 - To prescribe and analyse additional (mandatory and optional) methods of examination (laboratory, radiological, functional and/or instrumental) according to the list of 5, patients with diseases of organs and tissues of the oral cavity and maxillofacial area for differential diagnosis of diseases (according to the list 2).

PLO4 - Determine the final clinical diagnosis in accordance with the relevant ethical and legal standards, by making an informed decision and logical analysis of the obtained subjective and objective data of clinical, additional examination, differential diagnosis under the supervision of a supervising physician in a medical institution (according to list 2.1)

PLO5 - To diagnose emergency conditions under any circumstances (at home, on the street, in a medical institution), in an emergency situation, martial law, lack of information and limited time (according to list 4)

PLO14 - To establish the diagnosis of emergency conditions under any circumstances (at home, on the street, in a medical institution), in an emergency situation, martial law, lack of information and limited time (according to the list 4)

PLO15 - Assess the impact of the environment on the health of the population in a medical institution using standard methods

PLO20 - Organise the necessary level of individual safety (own and persons under care) in case of typical dangerous situations in the individual field of activity

PLO21 - Perform medical manipulations on the basis of preliminary and/or final clinical diagnosis (lists 2, 2.1) for different segments of the population and in different conditions (list 6).

As a result of the course study, a acquirer of higher education must:

Know: etiology, epidemiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention of viral infections

Be able to:

- communicate with the patient, collect complaints, life and medical history, epidemiological history, conduct a survey of organs and systems;

- conduct a physical examination of the patient and determine the main symptoms of the disease;
- analyse the results of laboratory, functional and instrumental studies;
- conduct differential diagnosis and substantiate clinical diagnosis;
- determine the tactics and provide emergency medical care in case of emergencies;
- determine the nature and principles of treatment based on a preliminary clinical diagnosis;
- determine emergency prevention measures;
- report on the results of the patient's examination, the correctness of the diagnosis, differential diagnosis, the scope of the prescribed examination, treatment tactics, assessment of prognosis and ability to work.

3. CONTENTS OF THE COURSE

Content module 1.

Herpesvirus infections. HIV infection

Topic 1: Diseases caused by herpes simplex virus (HSV) type 1/2. Etiology. Epidemiology. Pathogenesis.

Topic 2. Diseases caused by herpes simplex virus (HSV) type 1/2. Clinical features of lesions of the oral mucosa. Features of the course in HIV-infected persons.

Topic 3: Herpes zoster (Varicella Zoster). Etiology. Epidemiology. Pathogenesis. Clinic. Features of lesions of the oral mucosa.

Topic 4. Infectious mononucleosis (EBV and cytomegalovirus infection). Etiology. Epidemiology. Pathogenesis. Clinical features. Features of lesions of the oral mucosa.

Topic 5. HIV infection. Etiology. Epidemiology. Pathogenesis.

Topic 6. HIV infection / AIDS. Clinic. Features of lesions of the oral mucosa.

Content module 2.

Acute viral infections with airborne transmission mechanism

Topic 7. Influenza. Etiology. Epidemiology. Pathogenesis. Clinic. Features of lesions of the oral mucosa.

Topic 8: Adenovirus infection. Etiology. Epidemiology. Pathogenesis. Clinic. Features of clinical manifestations of lesions of the oral mucosa and lymphadenopathy.

Topic 9: Coronavirus disease COVID-19. Etiology. Epidemiology. Pathogenesis. Clinic. Features of lesions of the oral mucosa

Topic 10. Measles. Etiology of measles. Epidemiology. Pathogenesis. Clinic. Features of respiratory syndrome.

Topic 11. Rubella. Etiology of rubella. Epidemiology. Pathogenesis. Clinic. Features of lymphadenopathy.

Topic 12: Epidemic mumps. Etiology. Epidemiology. Pathogenesis. Clinic.

Topic 13. Natural smallpox. Monkeypox. Etiology. Epidemiology. Pathogenesis. Clinical features. Features of lesions of the oral mucosa

Content module 3.

Diagnosis, treatment and prevention of viral infections

Topic 14: Basic methods of diagnosis and treatment of patients with viral infections.

Methods for rapid diagnosis of viral infections associated with immunosuppression.

Principles of application and features of interpretation. Serological diagnostics, polymerase chain reaction, virological and other methods of diagnosing viral infections. Basic principles of treatment of viral infections.

Topic 15: Prevention of viral infections. Nonspecific and specific prophylaxis of viral infections: indications and features of use. Emergency and post-exposure prophylaxis of viral infections.

4. Structure of the credit

| Topic | Hours | | | | | |
|--|-------|-----------|----------|--------------------|------|------------|
| | Total | including | | | | |
| | | Lectures | Seminars | Practical sessions | Labs | Self-study |
| Content module 1. Herpesvirus infections. HIV infection | | | | | | |
| Diseases caused by herpes simplex virus (HSV) type 1/2 | 4 | | | 2 | | 2 |
| Diseases caused by herpes simplex virus (HSV) type 1/2 | 4 | | | 2 | | 2 |
| Herpes zoster (Varicella Zoster) | 6 | | | 2 | | 4 |
| Infectious mononucleosis (EBV and cytomegalovirus infection) | 6 | | | 2 | | 4 |
| HIV infection | 4 | | | 2 | | 2 |
| HIV infection / AIDS | 6 | | | 2 | | 4 |
| Total for content module 1 | 30 | | | 12 | | 18 |
| Content module 2. Acute viral infections with airborne transmission mechanism | | | | | | |
| Influenza | 6 | | | 2 | | 4 |
| Adenovirus infection | 6 | | | 2 | | 4 |
| Coronavirus disease COVID-19 | 6 | | | 2 | | 4 |
| Measles | 6 | | | 2 | | 4 |
| Rubella | 6 | | | 2 | | 4 |
| Epidemic mumps | 8 | | | 2 | | 6 |
| Natural smallpox. Monkey pox | 6 | | | 2 | | 4 |
| Total for content module 2 | 44 | | | 14 | | 30 |
| Content module 3. Diagnosis, treatment and prevention of viral infections | | | | | | |
| Basic methods of diagnosis and treatment of patients with viral infections | 8 | | | 2 | | 6 |
| Prevention of viral infections | 8 | | | 2 | | 6 |
| Total for content module 3 | 16 | | | 4 | | 12 |
| Total | 90 | | | 30 | | 60 |

Audit work - 33%, independent work - 66%.

5. Topics of lectures / seminars / practicals / labs

5.1. Topics of lectures

Lectures are not provided

5.2. Topics of seminars

Seminar sessions are not provided

5.3. Topics of practical sessions

| No | Topic | Hours |
|-----------|--|--------------|
| 1 | Topic 1: Diseases caused by herpes simplex virus (HSV) type 1/2 | 2 |
| 2 | Topic 2. Diseases caused by herpes simplex virus (HSV) type 1/2. | 2 |
| 3 | Topic 3: Herpes zoster (Varicella Zoster). | 2 |
| 4 | Topic 4. Infectious mononucleosis (EBV and cytomegalovirus infection) | 2 |
| 5 | Topic 5. HIV infection | 2 |
| 6 | Topic 6: HIV infection / AIDS | 2 |
| 7 | Topic 7. Influenza | 2 |
| 8 | Topic 8: Adenovirus infection | 2 |
| 9 | Topic 9: Coronavirus disease COVID-19 | 2 |
| 10 | Topic 10. Measles | 2 |
| 11 | Topic 11. Rubella | 2 |
| 12 | Topic 12: Epidemic mumps | 2 |
| 13 | Topic 13. Smallpox. Monkeypox | 2 |
| 14 | Topic 14. Basic methods of diagnosis and treatment of patients with viral infections | 2 |
| 15 | Topic 15. Prevention of viral infections | 2 |
| Total | | 30 |

5.4. Topics of laboratory sessions

Laboratory sessions are not provided

6. Acquirers' self-study activities

| No | Topic | Hours |
|-------|---|-------|
| 1 | Topic 1: Preparation for practical session 1 on the topic "Diseases caused by herpes simplex virus (HSV) type 1/2" | 2 |
| 2 | Topic 2. Preparation for practical lesson 2 on the topic "Diseases caused by herpes simplex virus (HSV) type 1/2" | 2 |
| 3 | Topic 3. Preparation for practical lesson 3 on the topic "Herpes zoster (Varicella Zoster)" | |
| 4 | Topic 4. Preparation for thematic lesson 4 on the topic "Infectious mononucleosis (EBV and cytomegalovirus infection)" | 4 |
| 5 | Topic 5. Preparation for practical lesson 5 on the topic "HIV infection" | 4 |
| 6 | Topic 6. Preparation for thematic lesson 6 on "HIV / AIDS" | 2 |
| 7 | Topic 7. Preparation for practical lesson 7 on the topic "Influenza" | 4 |
| 8 | Topic 8. Preparation for practical lesson 8 on the topic "Adenovirus infection" | 4 |
| 9 | Topic 9 Preparation for practical lesson 9 on the topic "Coronavirus disease COVID-19" | 4 |
| 10 | Topic 10 Preparation for practical lesson 10 on the topic "Measles" | 4 |
| 11 | Topic 11 Preparation for practical lesson 11 on the topic "Rubella" | 4 |
| 12 | Topic 12: Preparation for thematic lesson 12 on "Mumps" | 4 |
| 13 | Topic 13 Preparation for practical lesson 13 on the topic "Smallpox. Monkeypox" | 6 |
| 14 | Topic 14: Preparation for thematic session 14 on the topic "Basic methods of diagnosis and treatment of patients with viral infections" | 4 |
| 15 | Topic 15 Preparation for practical lesson 15 on the topic "Prevention of viral infections" | 6 |
| Total | | 60 |

7. Teaching techniques

Practical classes: conversation, role-playing, solving clinical situational problems, practicing the skills of examining a patient, practicing the skills of performing manipulations according to list 5, skills of differential diagnosis of the most common diseases.

Independent work: independent work with recommended basic and additional literature, with electronic information resources, preparation for practical classes; independent work with a bank of test tasks Step-2, independent mastering of communication algorithms with the patient.

8. Forms of control and evaluation methods (including criteria for evaluating learning outcomes)

Current monitoring of the success of acquirers' learning is carried out during practical training on the basis of theoretical knowledge and practical skills and abilities, for which the following forms of control are used

- oral survey;
- blitz survey;
- control of practical skills (work at the patient's bedside) - control by the teacher, self-control;
- control of solving a situational clinical problem with a diagnosis, its justification and answers to questions at the end of the class (written control);
- oral/written answers to questions on SRS topics in accordance with the calendar and thematic plan;

- assessment of activity in the classroom.

The grade for one practical lesson is the arithmetic mean of all components and can only have an integer value (5, 4, 3, 2), which is rounded according to the statistical method.

Final control: credit.

Evaluation of current learning activities in a practical / seminar / laboratory class:

1. Assessment of theoretical knowledge on the topic of the lesson:

- methods: a) survey, b) oral/written answers, c) solving a situational clinical problem;
- maximum grade - 5, minimum grade - 3, unsatisfactory grade - 2.

2. Assessment of work with a patient and practical skills on the topic of the class.

- Methods: a) assessment of communication skills with the patient,

b) correctness of appointment and evaluation of laboratory and instrumental studies, c)

compliance with the algorithm of differential diagnosis, d) justification of the clinical diagnosis, e) preparation of a treatment plan.

- maximum mark - 5, minimum mark - 3, unsatisfactory mark - 2.

Current evaluation criteria in practical training

| Grade | Evaluation criteria |
|--------------------|---|
| Excellent «5» | The acquirer has a fluent command of 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 lesson, demonstrates clinical thinking. |
| Good «4» | The acquirer 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 subject of the lesson, demonstrates clinical thinking. |
| Satisfactory «3» | The acquirer does not have sufficient knowledge of the material, is unsure of participating in the discussion and solving 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. |

Credit is awarded to an applicant who has completed all the tasks of the work program of the discipline, actively participated in practical classes, completed and defended an individual assignment and has a current average grade of at least 3.0 and has no academic debt.

The test is taken: at the last lesson before the start of the examination session - in the case of the tape system of education, at the last lesson - in the case of the cycle system of education. The grade for the test is the arithmetic average of all components on a traditional four-point scale and

has a value that is rounded according to the statistical method with two decimal places.

9. Distribution of points received by acquirers of higher education

The obtained grade point average for the discipline for acquirers who have successfully completed the work program of the discipline is converted from the traditional four-point scale to points on a 200-point scale, as shown in the table:

Table of conversion of traditional grade into a multi-point scale

| National assessment for discipline | The sum of points for the discipline |
|---|---|
| Excellent («5») | 185-200 |
| Good («4») | 151-184 |
| Satisfactory («3») | 120-150 |
| Unsatisfactory («2») | Lower then 120 |

A multi-point scale (200-point scale) characterizes the actual performance of each acquirer in mastering the educational component. The conversion of the traditional grade (grade point average for a discipline) into a 200-point scale is performed by the University's Information Technology Department.

According to the points obtained on a 200-point scale, the achievements of applicants are evaluated according to the ECTS rating scale. Further ranking according to the ECTS rating scale allows to evaluate the achievements of applicants in the educational component who study in one course of one specialty, according to the points they received.

The ECTS scale is a relative and comparative rating scale that establishes the applicant's belonging to the group of the best or worst among the reference group of fellow acquirers (faculty, specialty). Grade A on the ECTS scale cannot be equal to grade A, and grade B cannot be equal to grade B, etc. When converting from a multi-point scale, the limits of grades "A", "B", "C", "D", "E" on the ECTS scale do not coincide with the limits of grades "5", "4", "3" on the traditional scale. Applicants who have received grades "FX" and "F" ("2") are not included in the list of ranked applicants. The grade "FX" is assigned to applicants who have scored the minimum number of points for current academic activities, but who have not been credited with the final control. The grade "F" is assigned to applicants who have attended all classes in the discipline, but have not gained an average score (3.00) for current academic activities and are not allowed to take the final control.

Acquirers enrolled in the same course (one specialty), based on the number of points gained in the discipline, are ranked on the ECTS scale as follows:

Conversion of the traditional grade from the discipline and the sum of points on the ECTS scale

| ECTS mark | Statistic index |
|------------------|------------------------|
| “A” | Next 10% of acquirers |
| “B” | Next 25% of acquirers |
| “C” | Next 30% of acquirers |
| “D” | Next 25% of acquirers |
| “E” | Next 10% of acquirers |

10. Methodological back-up

- The course's work program;
- The syllabus;
- Methodical manuals to practical sessions;
- Guidelines to acquirers' self-studies;
- Multimedia presentations;
- Case study assignments;
- Cases of laboratory studies results
- Role-play scenarios

11. Topics for preparation to final control

1. Diseases caused by herpes simplex virus (HSV) type 1/2. Etiology.
2. Diseases caused by herpes simplex virus (HSV) type 1/2. Epidemiology.
3. Diseases caused by herpes simplex virus (HSV) type 1/2. Pathogenesis.
4. Diseases caused by herpes simplex virus (HSV) type 1/2. Clinical features of lesions of the oral mucosa.
5. Diseases caused by herpes simplex virus (HSV) type 1/2. Features of the course in HIV-infected persons
6. Herpes zoster (Varicella Zoster). Etiology.
7. Herpes zoster (Varicella Zoster). Epidemiology.
8. Herpes zoster (Varicella Zoster). Pathogenesis.
9. Herpes zoster (Varicella Zoster). Clinic.
10. Herpes zoster (Varicella Zoster). Features of lesions of the oral mucosa.
11. Infectious mononucleosis (EBV and cytomegalovirus infection). Etiology.
12. Infectious mononucleosis (EBV and cytomegalovirus infection). Epidemiology.
13. Infectious mononucleosis (EBV and cytomegalovirus infection). Pathogenesis.
14. Infectious mononucleosis (EBV and cytomegalovirus infection). Clinic.
15. Infectious mononucleosis (EBV and cytomegalovirus infection). Features of lesions of the oral mucosa.
16. HIV infection. Etiology. HIV infection. Epidemiology.
17. HIV infection. Pathogenesis.
18. HIV infection / AIDS. Clinic. HIV infection / AIDS. Features of lesions of the oral mucosa.
19. Influenza. Etiology.
20. Influenza. Epidemiology.
21. Influenza. Pathogenesis.
22. Influenza. Clinic.
23. Influenza. Features of lesions of the oral mucosa.
24. Adenovirus infection. Etiology.
25. Adenovirus infection. Epidemiology.
26. Adenovirus infection. Pathogenesis.
27. Adenovirus infection. Clinic.
28. Adenovirus infection. Features of clinical manifestations of lesions of the oral mucosa and lymphadenopathy.
29. Coronavirus disease COVID-19. Etiology.
30. Coronavirus disease COVID-19. Epidemiology.
31. Coronavirus disease COVID-19. Pathogenesis.
32. Coronavirus disease COVID-19. Clinic.
33. Coronavirus disease COVID-19. Features of lesions of the oral mucosa
34. Measles. Etiology of measles.
35. Measles. Epidemiology.

36. Measles. Pathogenesis.
37. Measles. Clinic.
38. Measles. Features of respiratory syndrome.
39. Rubella. Etiology.
40. Rubella. Epidemiology.
41. Rubella. Pathogenesis.
42. Rubella. Clinic.
43. Rubella. Features of lymphadenopathy.
44. Epidemic mumps. Etiology.
45. Epidemic mumps. Epidemiology.
46. Epidemic mumps. Pathogenesis.
47. Epidemic mumps. Clinic.
48. Smallpox. Etiology. Smallpox. Epidemiology.
49. Smallpox. Pathogenesis.
50. Smallpox. Clinic.
51. Natural smallpox. Features of lesions of the oral mucosa
52. Monkeypox. Etiology. Monkeypox. Epidemiology.
53. Monkeypox. Pathogenesis.
54. Monkeypox. Clinic.
55. Monkeypox. Features of lesions of the oral mucosa.
56. The main methods of diagnosis and treatment of patients with viral infections. Methods for rapid diagnosis of viral infections associated with immunosuppression. Principles of application and features of interpretation.
57. Serological diagnostics, polymerase chain reaction, virological and other methods of diagnosis of viral infections.
58. Basic principles of treatment of viral infections.
59. Prevention of viral infections. Nonspecific and specific prophylaxis of viral infections: indications and features of application.
60. Emergency and post-exposure prophylaxis prevention of viral infections

12. Recommended literature

Basic:

1. Infectious Diseases: textbook (IV a. l.) / O.A. Holubovska, M.A. Andreichyn, A.V. Shkurba, T.V. Chaban et al. К. ВСВ «Медицина», 2018. (APPROVED by the Ministry of Education and Science of Ukraine as a textbook for students of higher medical educational establishments; APPROVED by the Ministry of Health of Ukraine as a textbook for students of higher medical educational establishments) – 664 с. + 12 с. кольор. вкл. ; двокольор. вид. ISBN 978-617-505-727-8.
2. Інфекційні хвороби: Підручник / Є.В. Нікітін, М.А. Андрейчин, К.Л. Сервецький, В.О. Качор, А.М. Головченко, Є.М. Усиченко: За ред. Є.В. Нікітіна та М.А. Андрейчина. – Тернопіль: Укрмедкнига, 2004. – 364 с. ISBN 966-673-012-X
3. Pediatric Infectious Diseases: textbook / S.O. Kramarov, O.B. Nadraga, L.V. Pyra et al.; edited by S.O. Kramarov, O.B. Nadraga. — 4th edition. — Kyiv: AUS Medicine Publishing, 2020. — 240 p.
4. General epidemiology: study guide (IV a. l.) / N.O. Vynograd. — 3rd edition, corrected К: ВСВ «Медицина», 2017. – 128 с.
5. Hagberg H., Wennerholm U.B., Savman K. // Current Opinion in Infection Disease». – 2015. - Vol. - № 3. - P. 301-306.

6. Harrison's Principles of internal medicine. 19th edition /edited by Anthony S. Fauci, Dennis L Kasper, Dan L. Longo [et all]. – New York. - 2017. – 1307 p.

Additional

1. Comprehensive Textbook of Infectious Disease: M. I. Sahadulla, S. A. Udman. – 2nd edition. Jaypee Brothers, Medical Publishers Pvt. Limited, 2019 – 835 p.

2. Атлас дитячих інфекційних хвороб. Червона Книга = Red Book® Atlas of Pediatric Infectious Diseases: пер. 3-го англ. вид. : двомов. вид. / Керол Дж. Бейкер ; наук. ред. пер. проф. С.О. Крамарьов; пер. з англ. Л.В. Закордонець. — К. : ВСВ «Медицина», 2019. — 744 с. Tropical infections: manual/ed. MA Andreychyn, VD Moskaliuk. - Lviv: "Magnolia 2006", 2019. - 220 p.

3. Tropical infections: manual/ed. MA Andreychyn, VD Moskaliuk. - Lviv: "Magnolia 2006", 2019. - 220 p.

13. Online sources

- <https://library.odmu.edu.ua/catalog/> - Electronic catalogue of the ONMedU library
- <http://moz.gov.ua> – Ministry of Health of Ukraine
- www.ama-assn.org – American Medical Association
- www.who.int – World Health Organisation
- www.dec.gov.ua/mtd/home/ - The State Expert Center of the Ministry of Health of Ukraine
- <http://bma.org.uk> – British Medical Association
- www.gmc-uk.org - General Medical Council (GMC)
- www.bundesaerztekammer.de – German Medical Association