
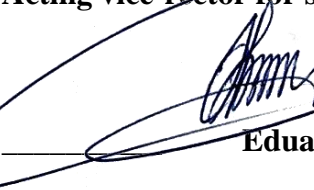


**MINISTRY OF HEALTH PROTECTION OF UKRAINE****ODESSA NATIONAL MEDICAL UNIVERSITY****Department of Therapeutic Dentistry****"APPROVED"****Acting vice-rector for scientific and pedagogical work****Eduard BURIACHIKIVSKYI****September 1, 2024****WORKING PROGRAM****ELECTIVE EDUCATIONAL DISCIPLINES****"Application of PRP-therapy in the complex treatment of chronic generalized periodontitis"****Level of higher education: second (master's)****Field of knowledge: 22 "Health care"****Specialty: 221 "Dentistry"****Educational and professional program: Dentistry****2024**

The study program of the academic discipline "Application of PRP-therapy in the complex treatment of chronic generalized periodontitis" is based on the educational and professional program "Dentistry" of training specialists of the second (master's) level of higher education in the specialty 221 "Dentistry" of the field of knowledge 22 "Health care", approved by the Scientific Council of ONMedU (protocol No.10 dated June, 27 2024).

**Developers:**

Doctor of medicine, prof. Skiba V.Ya.

Head teacher of the department, PhD in psychology, assoc. prof. S.M. Koval

PhD, assoc. prof.O.I. Aksinorska

PhD, assoc. prof.I.V. Gerasymova


Ass. O.G. Tsybaliuk

**The program was discussed at the meeting of the department of therapeutic dentistry, protocol No 1 from 27.08. 2024. Protocol No.1 dated 30.08.2024.**

Head of the department


  
\_\_\_\_\_ Vasyl SKYBA

Agreed with the MEP guarantor

  
\_\_\_\_\_ Anatoly GULYUK

**Approved by the subject cycle methodical commission for dental disciplines of ONMedU  
Protocol No. 1 dated .2023.**

**The head of the subject cycle methodical commission for dental disciplines of ONMedU**

  
\_\_\_\_\_ Volodymyr KRYKLYAS

**Reviewed and approved at the meeting of the department of**

*Therapeutic and pediatric dentistry*

Protocol No. 1 of " 2 " september 2024

Head of Department

 \_\_\_\_\_ Oksana Dienha

## 1. Description of the educational discipline:

### 1. Description of the educational discipline:

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the academic discipline
<b>The total number of:</b>  <b>Credits: 3.0</b>  <b>Hours: 90</b>  <b>Content modules: 1</b>	<b>Field of knowledge</b> <b>22 "Health care"</b>  <b>Specialty</b> <b>221 "Dentistry"</b>  <b>Level of higher education</b> <b>second (master's)</b>	<i>Full-time education</i>
		<i>Compulsory discipline</i>
		<i>Year of training: 5</i>
		<i>Semester IX,X</i>
		<i>Lectures (0 hours)</i>
		<i>Seminars (30 hours)</i>
		<i>Practical (0 hours)</i>
		<i>Laboratory (0 hours)</i>
		<i>Independent work (60 hours)</i> <i>including individual tasks (0 hours)</i> <i>The form of final control is credit</i>

### 2. The purpose and tasks of the educational discipline, competences, program learning results.

**The purpose** of studying the discipline "Application of PRP therapy in the complex treatment of chronic generalized periodontitis" is to acquire theoretical knowledge and form practical skills of patient examination and treatment; study of etiology, pathogenesis, clinic of diseases of periodontal tissues; ability to analyze examination results; carry out differential diagnosis and establish a preliminary diagnosis; determine the method of treatment, including PRP therapy in the clinic of therapeutic dentistry.

**The task of the discipline** "Application of PRP therapy in the complex treatment of chronic generalized periodontitis": to improve knowledge for the formation of practical skills of students to use equipment, devices and tools in practical activities in the dental office; to be able to evaluate and ensure the quality of the work performed, make informed decisions in professional activities and exchange professional experience. To form professional knowledge and skills in the treatment and prevention of periodontal diseases with the help of PRP therapy in the complex treatment of chronic generalized periodontitis.

**Competencies** and learning outcomes, the formation of which contributes to the discipline (interrelationship with the normative content of the training of higher education applicants, formulated in terms of learning outcomes in the Standard).

According to the requirements of the "Standard of Higher Education of Ukraine", the discipline "Application of PRP therapy in the complex treatment of chronic generalized periodontitis" ensures that the students acquire the following competencies:

#### **Integral competence:**

The ability to solve typical and complex specialized tasks and problems in the field of health care / in the specialty "Dentistry", in professional activity 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.

#### **General competences (GC):**

**GC 1.** Ability to abstract thinking, analysis and synthesis.

- GC 2.** Knowledge and understanding of the subject area and understanding of professional activity.  
**GC 3.** Ability to apply knowledge in practical activities.  
**GC 7.** Ability to find, process and analyze information from various sources.  
**GC 8.** Ability to adapt and act in a new situation.  
**GC 9.** Ability to identify, pose and solve problems.  
**GC 11.** Ability to work in a team.  
**GC 13.** The ability to act socially responsibly and consciously.

**Special competences (SC):**

- SC 1.** Ability to collect medical information about the patient and analyze clinical data.  
**SC 2.** Ability to interpret the results of laboratory and instrumental research.  
**SC 3.** The ability to diagnose: determine the previous, clinical, final, accompanying diagnosis, emergency conditions.  
**SC 4.** Ability to plan and conduct events with prevention of diseases of organs and tissues of the oral cavity and maxillofacial area.  
**SC 5.** Ability to design the process of providing medical care: determine the approaches, plan, types and principles of treatment of diseases of the organs and tissues of the oral cavity and maxillofacial area.  
**SC 8.** Ability to perform medical and dental manipulations.  
**SC 14.** Ability to maintain regulatory medical documentation.

**Program learning outcomes (PLO):**

- PLO 1.** Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using the previous data of the patient's history, the data of the patient's examination, knowledge about the person, his organs and systems, establish a probable nosological or syndromic preliminary clinical diagnosis of a dental disease (according to list 2)  
**PLO 2.** Collect information about the patient's general condition, evaluate the patient's psychomotor and physical development, the condition of the maxillofacial organs, based on the results of laboratory and instrumental studies, evaluate information about the diagnosis (according to list 5).  
**PLO 3.** Assign and analyze additional (mandatory and optional) examination methods (laboratory, X-ray, functional and/or instrumental) according to list 5, of patients with diseases of organs and tissues of the oral cavity and maxillofacial region for differential diagnosis of diseases (according to the list 2).  
**PLO 4.** Determine the final clinical diagnosis in compliance with the relevant ethical and legal norms, by making a reasoned decision and logical analysis of the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis under the control of the head physician in the conditions of a medical institution (according to list 2.1).  
**PLO 8.** Determine the approach, plan, type and principle of treatment of dental disease (according to list 2) by making a reasoned decision according to existing algorithms and standard schemes.  
**PLO 10.** Determine the tactics of managing a dental patient with somatic pathology (according to list 3) by making a reasoned decision according to existing algorithms and standard schemes.  
**PLO 11.** Carry out the treatment of the main dental diseases according to the existing algorithms and standard schemes under the control of the head doctor in the conditions of a medical institution (according to list 2.1).

**As a result of studying the academic discipline, the student of higher education should know:**

- the main principles of the organization of healthcare in Ukraine;
- principles of organization of dental care for the population;
- methods of examining a dental patient, indications and contraindications for their appointment;
- clinical signs of dental diseases;
- methods of prevention of the main dental diseases;
- principles of differential diagnosis of dental diseases;
- principles and stages of treatment of dental patients;
- equipment and tools for conducting PRP therapy in the complex treatment of chronic generalized periodontitis

-stages of PRP therapy;  
means and preparations for PRP therapy.

**be able:**

- collect anamnesis;
- conduct a general examination and examination of the organs of the maxillofacial region;
- conduct a clinical examination of a dental patient and analyze its results;
- compare clinical manifestations of diseases with examination results;
- carry out differential diagnosis of dental diseases;
- conduct an examination according to the algorithm. Recording of the dental formula;
- fill out the WHO epidemiological survey card;
- determine oral hygiene indices (Fedorova-Volodkina, GrinaVermiliona, Silnes-Lowe);
- to know the methods of brushing teeth (individual hygiene, controlled brushing, professional oral hygiene);
- prescribe oral hygiene products depending on the dental status;
- Remove dental deposits using dental tools, ultrasound;
- treat teeth with remineralizing agents, fluoride varnish;
- use diagnostic and treatment medical equipment,
- maintain medical documentation of the dental office;
- observe the rules of ethics and deontology in communication with patients, colleagues, doctors;
- to observe safety and occupational health and safety rules during work.

### 3. The content of the educational discipline

**Topic 1.** The concept of PRP therapy as a highly effective method in the treatment and restoration of periodontal structures. The role of blood cells and the rheological state of blood in tissue regeneration. Properties and qualitative composition of plasma and platelet mass of blood. Analysis of these indicators for the possibility of reproducing the specified method in the patient.

**Topic 2.** Equipment and instruments for PRP therapy. Types of centrifuges, necessary modes for carrying out the method. Types of test tubes for PRP therapy and the use of anticoagulants. Small instruments and accessories.

**Topic 3.** PRP therapy protocol, necessary personnel, asepsis and antiseptics.

**Topic 4.** Stages of PRP therapy, modern algorithm

**Topic 5.** Peculiarities of PRP therapy in the treatment of patients with chronic generalized periodontitis.

**Topic 6.** Indications and contraindications for PRP therapy in the treatment of patients with chronic generalized periodontitis. Peculiarities of choosing the date of the method for women. Means for improving blood parameters for further PRP therapy.

**Topic 7.** Methodology of PRP therapy: number of sessions, quality control.

### 4. Structure of the academic discipline:

Titles of topics	Number of hours	Titles of topics					Number of hours
		Includ ing ever ythi ng	Including everything				
			lectur es	semin ars	practi cal	labo rator y	
<b>Topic 1.</b> The concept of PRP therapy as a highly effective method in the	10		2				8

treatment and restoration of periodontal structures. The role of blood cells and the rheological state of blood in tissue regeneration. Properties and qualitative composition of plasma and platelet mass of blood. Analysis of these indicators for the possibility of reproducing the specified method in the patient.						
<b>Topic 2.</b> Equipment and instruments for PRP therapy. Types of centrifuges, necessary modes for carrying out the method. Types of test tubes for PRP therapy and the use of anticoagulants. Small instruments and accessories.	12		4			8
<b>Topic 3.</b> PRP therapy protocol, necessary personnel, asepsis and antiseptics.	10		2			8
<b>Topic 4.</b> Stages of PRP therapy, modern algorithm	12		4			8
<b>Topic 5.</b> Peculiarities of PRP therapy in the treatment of patients with chronic generalized periodontitis.	14		6			8
<b>Topic 6.</b> Indications and contraindications for PRP therapy in the treatment of patients with chronic generalized periodontitis. Peculiarities of choosing the date of the method for women. Means for improving blood parameters for further PRP therapy.	16		6			10
<b>Topic 7.</b> Methodology of PRP therapy: number of sessions, quality control.	16		6			10
<b>Total</b>	90		30			60

### 5. Topics of lectures / seminars / practical / laboratory classes

#### 5.1. Topics of lectures

Lectures are not provided.

#### 5.2. Topics of practical classes

Practical classes are not provided

#### 5.3. Thematic plan of seminar classes

№	Topic name	Number hours
1	<b>Topic 1.</b> The concept of PRP therapy as a highly effective method in the treatment and restoration of periodontal structures. The role of blood cells and the rheological state of blood in tissue regeneration. Properties and qualitative composition of plasma and platelet mass of blood. Analysis of these indicators for the possibility of reproducing the specified method in the patient.	2
2	<b>Topic 2.</b> Equipment and instruments for PRP therapy. Types of centrifuges, necessary modes for carrying out the method. Types of test tubes for PRP therapy and the use of anticoagulants. Small instruments	4

	and accessories.	
3	<b>Topic 3.</b> PRP therapy protocol, necessary personnel, asepsis and antiseptics.	2
4	<b>Topic 4.</b> Stages of PRP therapy, modern algorithm	4
5	<b>Topic 5.</b> Peculiarities of PRP therapy in the treatment of patients with chronic generalized periodontitis.	6
6	<b>Topic 6.</b> Indications and contraindications for PRP therapy in the treatment of patients with chronic generalized periodontitis. Peculiarities of choosing the date of the method for women. Means for improving blood parameters for further PRP therapy.	6
7	<b>Topic 7.</b> Methodology of PRP therapy: number of sessions, quality control.	6
	Total	30

#### 5.4. Topics of laboratory classes

Laboratory classes are not provided.

#### 6. Independent work

№	Topic name	Number hours
1	Topic 1. Cellular composition of blood, functions of blood cells. Rheological properties of blood.	8
2	Topic 2. Blood platelets, their structure, number fluctuations depending on the state of the body.	8
3	Topic 3. The structure of the bone component of the periodontium and the dependence of its condition on inflammatory-dystrophic processes	8
4	Topic 4. Antiaggregative action of anticoagulants, types of anticoagulants	8
5	Topic 5. Blood cells examination, reading and interpretation	8
6	Topic 6. Peculiarities of individual hygiene in patients after PRP therapy	10
7	Topic 7. Appropriate documentation and patient consent for PRP therapy in a dental clinic	10
	Total	60

#### 7. Teaching methods

**The teaching of the selective educational discipline** "Application of PRP therapy in the complex treatment of chronic generalized periodontitis" in seminar classes is provided by methodical developments for each seminar class, visual teaching aids for each class (presentations, video lectures), the department's information resource, and structured skill control algorithms.

**Independent work in the study** of a selective academic discipline is ensured by methodical developments for independent work, visual teaching aids (video lectures, presentations), information resource of the department, topics of independent work, structured algorithms of skill control.

There is no final control, the study of the discipline ends with a credit at the last seminar class.

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

##### Current control:

1. Evaluation of theoretical knowledge on the subject of the lesson:

methods: survey, solving a situational clinical problem;

the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.

2. Evaluation of practical skills and manipulations on the subject of the lesson:

methods: assessment of the correctness of the performance of practical skills, role play.

the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.

The grade for one practical session is the arithmetic average of all components and can only have a whole value (5, 4, 3, 2), which is rounded according to the statistical method.

### Current evaluation criteria in practical training

Mark	Current evaluation
«5»	The applicant is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills during the when working on a phantom and interpreting clinical, laboratory and instrumental research data, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.
«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 when working on a phantom and interpreting clinical, laboratory and instrumental research data with some errors, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.
«3»	The acquirer does not have sufficient knowledge of the material, is unsure of participating in the discussion and solution of a situational clinical problem, demonstrates practical skills during the when working on a phantom and interpreting clinical, laboratory and instrumental research data with significant errors.
«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 when working on a phantom and interpreting clinical, laboratory and instrumental research data.

Final control: credit.

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

Assessment is carried out: at the last lesson before the beginning of the examination session - with the tape system of learning, at the last lesson - with the cycle system of learning. The credit score is the arithmetic mean of all components according to the traditional four-point scale and has a value that is rounded according to the statistics method with two decimal places after the decimal point.

#### 9. Distribution of points received by higher education applicants

The average score for the discipline is translated into a national score and converted into points on a multi-point scale (200-point scale).

The conversion of a traditional grade into a 200-point grade is performed by the information and technical department of the University using the "Contingent" program according to the formula:

**Average success score (current success in the discipline) x 40**

**Table of conversion of traditional assessment to multi-point assessment**

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")	Less 120

A multi-point scale (200-point scale) characterizes the actual success of each applicant in learning the educational component. The conversion of the traditional grade (average score for the academic discipline) into a 200-point grade is performed by the information and technical department of the University.

According to the obtained points on a 200-point scale, the achievements of the applicants are evaluated according to the ECTS rating scale. Further ranking according to the ECTS rating scale



allows you to evaluate the achievements of students from the educational component who are studying in the same course of the same specialty, according to the points they received.

The ECTS scale is a relative-comparative rating, which establishes the applicant's belonging to the group of better or worse among the reference group of fellow students (faculty, specialty). An "A" grade on the ECTS scale cannot be equal to an "excellent" grade, a "B" grade to a "good" grade, etc. When converting from a multi-point scale, the limits of grades "A", "B", "C", "D", "E" according to the ECTS scale do not coincide with the limits of grades "5", "4", "3" according to the traditional scale. Acquirers who have received grades of "FX" and "F" ("2") are not included in the list of ranked acquirers. The grade "FX" is awarded to students who have obtained the minimum number of points for the current learning activity, but who have not passed the final examination. A grade of "F" is given to students who have attended all classes in the discipline, but have not achieved a grade point average (3.00) for the current academic activity and are not admitted to the final examination.

Applicants who study in one course (one specialty), based on the number of points scored 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  
According to the ECTS rating scale, the achievements of students in the educational component who study in the same course of the same specialty are evaluated, according to the points they received, by ranking, namely:

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

<b>Score on a scale ECTS</b>	<b>Statistical indicator</b>
A	Top 10% achievers
B	The next 25% of earners
C	The next 30% of earners
D	The next 25% of earners
E	The next 10% of earners

**10. Methodical provision**

1. Working training program in the discipline "Application of PRP therapy in the complex treatment of chronic generalized periodontitis"
2. Methodical developments for applicants for seminar classes.
3. Questions and tasks for current control of knowledge and skills of applicants.
4. Textbooks and study guides.
5. Scientific works of professors and teaching staff of the department and other researchers on problems of philosophy and methodology of science.
6. A collection of test tasks, an electronic bank of test tasks, situational tasks as part of methodological developments for seminar classes.

**11. Questions for preparing for the final inspection**

1. Etiology, pathogenesis and clinic of chronic generalized periodontitis.
2. The concept of PRP therapy. Mechanism of action of platelet mass on the periodontium
3. Indications and contraindications for PRP therapy in patients with chronic generalized periodontitis
4. Equipment and instruments for PRP therapy
5. Laboratory centrifuges and the principle of their operation
6. Types of tubes for PRP therapy
7. Anticoagulants used in PRP therapy and their mechanism of action.
8. Basic principles of asepsis and antisepsis during PRP therapy.
9. Complete blood count and its interpretation.
10. The concept of platelet mass and its properties
11. Choosing the date of therapy for women depending on the day of the cycle.

12. Appropriate documentation and patient consent for therapy
13. Features of individual and professional oral hygiene in diseases of periodontal tissues.
14. Algorithm of PRP-therapy, stages of implementation
15. Preparation of patients for PRP therapy
16. Monitoring the effectiveness of PRP therapy in chronic generalized periodontitis.

## 12. Recommended literature

### Main:

1. Practical periodontology: manual: trans. 2nd Eng. kind. / Kenneth Eaton, Philip Over; of science ed. trans. Anatoly Borysenko. - K.: VSV "Medicine", 2023. - 312 p.
2. Bidenko N.V., Borysenko A.V., Vasylychuk O.V. etc.. Algorithms for performing dental and medical manipulations for preparation for the State certification of students of the 5th year in the specialty "Dentistry". - Kyiv: Kniga-plus, 2017. - 408 p.
3. Periodontology and diseases of the oral mucosa: in 2 volumes: textbook. for honey universities, institutes, acad. / Borysenko A.V., Lynovytska L.V., Nesyn O.F. etc.; under the editorship A.V. Borysenko, 2018. 624 p.
4. Clinical pharmacology and pharmacotherapy in dentistry: teaching. manual for honey universities, institutes, acad. 2nd edition Recommended by the Academic Council of the NMAPO named after P.L. Shupyka / Mazur I.P., Haytovych M.V., Golopyho L.I., 2019. 376 p.
5. Emergencies in dental practice: teaching. manual for honey universities, institutes, acad. dental profile. 2nd ed., ed. Recommended by the Ministry of Health and the Ministry of Health / Skrypnyk I.M., Skrypnikov P.M. et al., 2017. 224 p.
6. Dental diseases: therapeutic stomatology: tutorial. for honey University I-III, R.A. Approved by the Ministry of Health / A.V. Borysenko, M.Yu. Antonenko, L.V. Lynovytska and others; under the editorship A.V. Borysenko, 2017. 664 p.
7. Dentistry: in 2 books. Book 2: assistant for honey universities, institutes, acad. 2nd edition Approved by the Ministry of Health / edited by M.M. Rozhka, 2018. 992 p.
8. Biloklyc'ka G. F., Kopchak O.V. Sposib likuvannja zapal'nyh ta zapal'nodystrofichnyh zahvorjuvan' tkanyn parodonta [A method of treating inflammatory and inflammatory-dystrophic diseases of periodontal tissues]. Patent of Ukraine for useful model № 98756, 12.05.2015: 4
9. Biloklyc'ka G. F., Kopchak O.V., Djejev V.A., Rozdobud'ko N.I Sposib ocinky koncentracijnoi' zdatnosti trombocytivdlja dlja otrymannja zbagachenoj' trombocytamy plazmy (PRP) ta vyznachennja optimal'nogo ob'jemu pry likuvanni ta profilaktycistomatologichnyh zahvorjuvan' [The method of estimating the concentration trombocytos to obtain platelet-rich plasma (PRP) and to determine the optimal volume in the treatment and prevention of dental diseases]. Patent of Ukraine for useful model. № 119952, 10.10.2017:3.
10. Biloklyc'ka G. F., Kopchak O.V., Djejev V.A., Rozdobud'ko N.I Sposib otrymannja zbagachenoj' trombocytamy plazmy (platelet reach plasma, PRP) z venoznoi' krovi [A method of producing platelet-rich plasma (platelet reach plasma, PRP) from venous blood]. Patent of Ukraine for useful model. № 119951, 10.10.2017: 3.
11. Kopchak O.V. The prevalence and features of generalized periodontitis with cardiovascular disease. Modern Science, Praha. 2017;3:132 – 139
12. Biloklytska G.F., Kopchak O.V. The use of platelet-rich plasma (PRP) in reparative periodontology. Stomatol. Współcz. 2014;V.21.,3: 8-17
13. Biloklytska G.F., Kopchak O.V., Diejev V.A., Rozdobudko N.I. Optimization of method for obtaining preparations to conduct PRP injection therapy. Stomatol. Współcz. 2017;V.24, 3:28-31

14. Anitua, R. Prado, M. Troya [et al.] Implementation of more physiological plasma rich in growth factor (PRGF) protocol: Anticoagulant removal and reduction in activator concentration. *J Platelets*. 2016;Vol.27,5:459-466

**Auxiliary:**

1. Borysenko A.V., Antonenko M.Yu., Sidelnikova L.F., Melnychuk T.A. Essays on practical periodontology. - K.: LLC "Library "Health of Ukraine" - Kyiv: "Library "Health of Ukraine", 2017. — 348 p.
2. Bidenko N. V., Borysenko A. V., Vasylichuk O. V., Volynets V. M., Volovar O. S., Golubeva I. M. and others. Algorithms for performing dental and medical manipulations for preparation for the State certification of students of the 5th year in the specialty "Dentistry". Kyiv, "Book plus", 2017. - 401 p.
3. Bidenko N. V., Borysenko A. V., Vasylichuk O. V., Volynets V. M., Volovar O. S., Golubeva I. M. and others. Algorithms for performing dental and medical manipulations for preparation for the State certification of students of the 5th year in the specialty "Dentistry". Kyiv, "Book Plus", 2018. - 448 p.
6. Information and educational environment [info.onmedu.edu.ua](http://info.onmedu.edu.ua)

**13. Information resources**

1. Official website of ONMedU <https://onmedu.edu.ua/>
2. Electronic information resources of the ONMedU library <http://info.odmu.edu.ua/>
  - Electronic catalog of the library.
  - Information and reference sources: encyclopedias, directories, dictionaries
  - Educational electronic publications and resources: manuals containing systematized material within the curriculum of the academic discipline.