



Curriculum is based on the educational program «Dermatovenereology», approved 15.11.2023, registration # УД-01-32/2324/уч.; on the educational plan in the specialty 1-79 01 01 «General Medicine», approved 17.05.2023, registration # 7-07-0911-01/2324/mf.

**COMPILER:**

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**RECOMMENDED FOR APPROVAL:**

by the Department of Skin and Venereal Diseases of the Educational Institution «Belarusian State Medical University»  
(protocol # 2 of 08.09.2023);

by the Scientific Methodical Council of the Educational Institution «Belarusian State Medical University»  
(protocol # 11 of 15.11.2023)

## EXPLANATORY NOTE

«Dermatovenereology» is the educational discipline of the module «Therapy module #2» containing systematized scientific knowledge concerning the causes, mechanism of development, manifestations, diagnostics, treatment and prevention of skin diseases and sexually transmitted infections.

The aim of the discipline «Dermatovenereology» is to develop basic professional competences to solve the problems of occupational activity in the field of diagnostics, management and prevention of the most common skin diseases and sexually transmitted infections.

The objectives of the discipline «Dermatovenereology» are to develop the students' scientific knowledge about etiology, pathogenesis, diagnostics, management and prevention of the most common skin diseases and sexually transmitted infections, that are necessary for:

- examination of patients with skin diseases and sexually transmitted infections;
- identification of clinical manifestations of acute and chronic dermatoses of infectious and non-infectious origin and also sexually transmitted infections;
- application of techniques of clinical, instrumental and laboratory diagnostics, that are used in the field of skin diseases and sexually transmitted infections;
- interpretation of the results of clinical and laboratory examinations;
- making a diagnosis of skin disease or sexually transmitted infection;
- prescription a general and topical treatment for skin diseases and sexually transmitted infections;
- prevention of skin diseases and sexually transmitted infections;
- provision of urgent aid in case of life-threatening conditions with dermatological manifestations
- adoption of principles of medical ethics and deontology while working with patients.

The knowledge, skills and abilities acquired during the study of the academic discipline «Dermatovenereology» are necessary for successful mastering of the following academic disciplines: «Clinical pharmacology», «Internal diseases», «Surgical diseases», «Infection diseases», «Obstetrics and Gynecology», «Urology», «Phthisiopulmonology», «Epidemiology».

Studying the educational discipline «Dermatovenereology» should ensure the formation of students' specialized competency:

SC. Use knowledge of clinical symptoms, apply methods of patient examination, diagnosis and differential diagnosis, principles of treatment and prevention, make clinical diagnosis of dermatovenereological pathology, tuberculosis, major neurological and infectious diseases.

As a result of studying the discipline «Dematovenereology» the student should **know:**

etiology and pathogenesis of the most common infectious and non-infectious diseases of skin and sexually transmitted infections;

classification, clinical presentations, diagnostics and differential diagnostics of the most common infectious and non-infectious diseases of skin and sexually transmitted infections;

methods of prevention and treatment of the most common infectious and non-infectious diseases of skin and sexually transmitted infections

**be able to:**

identify primary and secondary skin lesions;

plan and carry out the complex examination of dermatovenereological patient;

prescribe treatment, urgent aid included, to patients with skin diseases and sexually transmitted infections.

**master:**

principal methods of clinical, laboratory, instrumental etc. examination applied in dermatology;

modern methods of general and topical treatment of skin diseases and sexually transmitted infections;

methods of prevention of skin diseases and sexually transmitted infections.

**Total number** of hours for the study of the discipline is 188 academic hours. Classroom hours according to the types of studies: lectures – 20 hours (including 6 academic hours of supervised student independent work), practical classes – 76 hours, student independent work (self-study) – 92 hours.

Intermediate assessment is carried out according to the syllabus of the specialty in the form of a credit (6th semester) and examination (7th semester).

Form of higher education – full-time.

### ALLOCATION OF ACADEMIC TIME ACCORDING TO SEMESTERS OF STUDY

Code, name of the specialty	semester	Number of academic hours						Form of intermediate assessment
		total	in-class	including			out-of-class self-studies	
				lectures (including supervised independent work)	including supervised independent work	practical classes		
1-79 01 01 «General Medicine»	6	98	50	10	3	40	48	credit
	7	90	46	10	3	36	44	exam



## THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures	practical
<b>1. Dermatology</b>	<b>14</b>	<b>58</b>
1.1. Introduction to dermatology. Structure and functions of human skin	2	-
1.2. Skin pathology. Diagnostics in dermatology	-	3
1.3. Principles of therapy of dermatoses	-	3
1.4. Pustular diseases of the skin (pyodermas)	2	3
1.5. Fungal infections of the skin (mycoses)	2	-
1.6. Cutaneous malasseziosis. Candidiasis. Chronic mycoses	-	3
1.7. Quarantine mycoses. Pseudomycoses	-	3
1.8. Viral infections of the skin	-	3
1.9. Mycobacterial infections of the skin	-	3
1.10. Parasitic infections of the skin	-	3
1.11. Allergic dermatoses	2	3
1.12. Atopic dermatitis and related disorders	2	3
1.13. Occupational dermatoses	-	3
1.14. Papulosquamous diseases of the skin	-	3
1.15. Genodermatoses. Seborrhea. Acne	-	4
1.16. Neoplasms of the skin	-	6
1.17. Connective tissue autoimmune diseases. Vascular disorders of the skin	4	6
1.18. Bullous dermatoses. Erythema multiforme	-	6
<b>2. Venereology</b>	<b>6</b>	<b>18</b>
2.1. Introduction to venereology	2	-
2.2. Syphilis	2	-
2.3. Primary and secondary syphilis	-	6
2.4. Tertiary, atypical, congenital syphilis. Diagnostics, treatment and prevention of syphilis	-	6
2.5. Gonococcal infection. Non-gonococcal diseases of urogenital tract	-	6
2.6. HIV-infection	2	-
<b>Total hours</b>	<b>20</b>	<b>76</b>

## CONTENT OF THE EDUCATIONAL MATERIAL

### 1. DERMATOLOGY

#### 1.1. Introduction to dermatology. Structure and functions of human skin

Dermatovenereology as an independent clinical discipline. The formation, content, objectives, methods, relationship with other special subjects.

Scientific dermatological schools (Belarusian, Russian, English, French, German, Italian, Norwegian, American etc), their role in the development of the dermatovenereology.

Structure and physiology of the skin. Cellular composition. Collagen, reticular, elastic fibers, interstitial substance. Epidermis, dermis, hypodermis. Skin muscles. Blood and lymph vessels. Neuroreceptory apparatus. Sweat and sebaceous glands. pH-reaction of the skin. Hairs and the hair follicle. Nails. Skin color

Age characteristics of skin structure, peculiarities in children and elderly people. Regulation of melanogenesis and epidermopoiesis, functions of sweat and sebaceous glands.

Main skin functions - protective, immunological, thermoregulatory, secretory, receptive, metabolic, resorptive, respiratory etc. Skin as the sense organ. Age-related characteristics of skin functions and metabolism.

Structure and functions of oral mucosa and lips.

Skin and oral mucosa relationship with internal organs and systems. Involvement of human skin in water, mineral, protein, carbohydrate, vitamin, enzyme and lipid metabolism.

#### 1.2. Skin pathology. Diagnostics in dermatology

The role of exogenous, endogenous and social factors in the genesis and development of dermatoses. Acute and chronic cutaneous inflammation. Hyperkeratosis, parakeratosis, dyskeratosis, acanthosis, granulosis, agranulosis, papillomatosis, acantholysis, vacuolar degeneration, spongiosis, ballooning degeneration, epidermolysis etc.

Skin lesions. Primary lesions: macula, papule, tubercle, node, wheal, vesicle, bulla, pustule. Secondary lesions: dyschromia (secondary macule), scale, crust, fissure, excoriation, erosion, ulcer, scar, atrophy, vegetation, lichenification. Hairs and nails changes. Peculiarities of mucosal manifestations. Subjective sensations in dermatology.

Methodology of examination of dermatological patient. Issues of medical ethics and deontology while working with patients. Ethics of medical staff interrelations.

Complaints of patient. Life history. Working and living conditions. History of disease. State of internal organs and nervous system. General properties of the skin: color, turgor and elasticity, the state of perspiration and sebum secretion; dermatographism, vascular reactions, skin sensitivity. Description of skin and mucosal lesions.

Special examination in dermatology: palpation, scraping, diascopy, iodine test, isomorphic reaction, Nikolsky sign, inspection of lesions in side lighting etc. Dermatoscopy. Luminescent diagnostics in dermatology. Skin biopsy. Dermal, peroral

and other allergological tests. Laboratory studies: general and special. Microbiological research methods in dermatology. The most important functional studies. Examination of oral mucosa.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations.

### **1.3. Principles of therapy of dermatoses**

Medicines for general dermatological treatment.

Medical formulations for external use: solutions, powders, suspensions, creams, gels, pastes, ointments, plasters, lacquers, aerosols etc. Anti-inflammatory, resolving, keratolytic, antipruritic, cauterizing, disinfecting, antifungal, antiparasitic and other topical pharmacological agents. Classification of topical corticosteroids. Peculiarities of topical treatment of mucosal lesions. Physical treatments: heat treatments, cryotherapy, light therapy, electrotherapy, ultrasound, laser therapy, balneotherapy etc.

General principles of prophylactic medical examination of patients with chronic dermatoses.

Practical component of the class: Identification of skin lesions, description of cutaneous and mucosal manifestations. Proper choice of medical formulation for external use.

### **1.4. Pustular diseases of the skin (pyodermas)**

Pyodermas: definition, prevalence, etiology, pathogenesis. Role of pyogenic bacteria, macroorganism and the environment in the development of pyodermas. Classification of pyodermas. Clinical characteristics of disease course and pathomorphology of main clinical forms.

Diagnostics of pyodermas. Microbiological diagnosis, detection of microbial sensitivity to antibiotics.

Principles of general and topical treatment of pyodermas: regimen and diet of patient, antibiotics and sulfonamides, specific and nonspecific immunotherapy, regenerative preparations, treatment of opportunistic diseases, topical treatment, external antiseptics, physiotherapy. Pyodermas prevention.

Staphylococcal pyodermas. Clinical features and diagnostics of superficial folliculitis and folliculitis, sycosis (folliculitis barbae), furuncle and furunculosis, carbuncle, pseudofurunculosis, hydradenitis.

Streptococcal pyodermas. Clinical features and diagnostics of different kinds of impetigo and ecthyma.

Strepto-staphylococcal pyodermas.

Chronic ulcerative pyodermas.

Epidemiological safety of medical aid while working with pyoderma patients.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use.



### **1.5. Fungal infections of the skin (mycoses)**

Mycoses. Contemporary classification. Epidemiology. Etiology. Pathogenesis. Clinical manifestations of tinea pedis et manus, tinea corporis, tinea cruris, tinea capitis et barbae. Pityriasis versicolor. Cutaneous and mucosal candidiasis. Diagnostics. Differential diagnostics. Treatment. Prevention. Organisation of the fight against cutaneous fungal infections.

### **1.6. Cutaneous malasseziosis. Candidiasis. Chronic mycoses**

Mycoses (fungal infections): causative agents, prevalence, ways of infection. Factors contributing to the development of fungal infection. Pathogenesis of mycoses. Classification.

Cutaneous malasseziosis (pityriasis versicolor). Tinea cruris. Tinea pedis et manus, tinea unguinum. Tinea corporis and faciei associated with *Tr. rubrum*. Causatives. Etiopathogenesis. Epidemiology. Clinical manifestations. Diagnostics. Differential diagnostics. Treatment. Prevention.

Candidiasis. Causatives. Epidemiology. Candidiasis of skin folds and nails. Oropharyngeal candidiasis. Urogenital candidiasis. Clinical manifestations. Diagnostics. Differential diagnostics. Treatment. Prevention.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use. Performance of Iodine Balzer test for pityriasis versicolor diagnostics. Luminescent (Wood's lamp) diagnostics of mycoses. Microscopic revelation of mycosis causatives.

### **1.7. Quarantine mycoses. Pseudomycoses**

Quarantine mycoses: tinea capitis et barbae (ectotrix and endotrix types), tinea corporis caused by *Microsporum canis* and *Microsporum ferrugineum*, *Trichophyton violaceum*, *Trichophyton gypseum* and *Trichophyton verrucosum*, *Trichophyton Shoenleini* (favus). caused by *Microsporum* and *Trichophyton* spp. Characteristics of causative agents. Epidemiology. Etiopathogenesis. Clinical manifestations, clinical types. Diagnostics. Differential diagnostics. Treatment. Recovery control. Prevention.

Pseudomycoses: erythrasma. Causative agent. Epidemiology. Clinical manifestations. Diagnostics. Differential diagnostics. Treatment. Prevention.

Clinical and laboratory diagnostics of fungal infection. Luminescent diagnostics of tinea capitis. Application of microscopic and cultural examination for diagnostics of mycoses of skin and skin appendages.

Treatment of fungal infection. General therapy: groups of medications, schemes of application, age-related peculiarities. Indications and contraindications for systemic antimycotics prescription. Topical therapy: local fungicidal preparations. Recovery criteria.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use. Luminescent (Wood's lamp) diagnostics of mycoses. Microscopic revelation of mycosis causatives.

### **1.8. Viral infections of the skin**

Herpes simplex: etiology and pathogenesis, epidemiology, clinical presentations on skin and mucous membranes, complicated and atypical forms. Eczema herpeticum Kaposi. Diagnostics and therapy of herpes simplex. Prevention of herpes simplex.

Herpes zoster: etiology and pathogenesis, epidemiology, clinical forms. Diagnostics and treatment of herpes zoster: etiotropic agents, anti-inflammatory medications and pain-relievers, topical antiseptics. Prevention of herpes zoster.

Human papillomavirus infection (warts, condylomas acuminatum): etiology and pathogenesis, epidemiology, clinical forms, diagnostics, treatment. Specific and nonspecific prevention of human papillomavirus infection.

Molluscum contagiosum: etiology and pathogenesis, epidemiology, clinical presentations, diagnostics, treatment, prevention.

Epidemiological safety of medical aid while working with viral infections patients.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use.

### **1.9. Mycobacterial infections of the skin**

Tuberculosis of skin and mucosa: etiology and pathogenesis, epidemiology, skin penetration routes. The significance of macroorganism and the environment in the development of skin tuberculosis. Status of general and specific immune reactivity of organism and its influence on the occurrence of different clinical variants of cutaneous tuberculosis.

Classification of cutaneous tuberculosis. Clinical presentations and pathomorphology of principal clinical forms of cutaneous tuberculosis.

Diagnostics of cutaneous tuberculosis. Diagnostic significance of tuberculin test and auxiliary methods («apple jelly» sign, «bulbous probe» sign). Histological examination in case of cutaneous tuberculosis.

Principles of therapy of cutaneous tuberculosis. Antituberculous medications. Prevention of cutaneous tuberculosis.

Leprosy: history, world prevalence, etiology, pathogenesis, epidemiology. classification.

Clinical types of disease. The affection of skin, mucosae, nervous system and viscera in different types of leprosy. Pathology of leprosy. Methods of clinical and laboratory diagnostics. Treatment of leprosy. Prevention of leprosy. Rehabilitation of leprosy patients.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use.



### **1.10. Parasitic infections of the skin**

Scabies: etiology and pathogenesis, conditions and routes of contamination, epidemiology, clinical presentations, complications. Peculiarities of scabies in infants. Atypical kinds of scabies. Clinical and laboratory diagnostics of scabies. Treatment of scabies. Prevention of scabies. Hygiene and Epidemiology Centres participation in scabies prevention.

Grain (straw, harvest) and animal scabies (mite dermatites): etiology, pathogenesis, routes of contamination, clinical appearance, diagnostics, treatment, prevention.

Lice infestations (pediculosis): etiology and pathogenesis. Routes of contamination. Pediculosis corporis and pediculosis vestimenti. Pediculosis pubis (phthiriasis). Epidemiology, clinical appearance of pediculosis. Diagnostics, differential diagnostics. Treatment of pediculosis. Prevention of pediculosis.

Cutaneous leishmaniasis: causative agents, epidemiology, pathogenesis. Clinical types of cutaneous leishmaniasis. Differential diagnostics of urban and rural cutaneous leishmaniasis. Clinical and laboratory diagnostics, treatment, prevention of cutaneous leishmaniasis. Vaccination.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use. Microscopic revelation of scabies causatives.

### **1.11. Allergic dermatoses**

Dermatitis: definition, etiology, pathogenesis, classification. Allergic and irritant contact dermatitis. Clinical presentations of dermatitis. Differential diagnostics of allergic and irritant contact dermatitis. The role of skin testing in diagnosing of allergic dermatitis. General and topical dermatitis treatment.

Drug eruptions: definition, etiology, pathogenesis, clinical types. Food-related and drug-related eruptions. Lyell's syndrome. Clinical features of drug eruptions. Diagnostics of drug eruptions. Treatment and prevention of different forms of drug eruptions. Urgent aid in case of drug eruptions.

Eczema: etiology, pathogenesis. The role of environmental factors and immune reactivity in the development of eczema. Classification of eczema. Clinical types of eczema. Stages of eczema. Differential diagnostics of various eczema types. Pathology of eczema. Therapy of eczema. Topical therapy according to eczema stage. Prevention of eczema. Prophylactic medical examination and job placement of patients.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use.

### **1.12. Atopic dermatitis and related disorders**

Pruritus: definition, pruritus as symptom and as disease itself, etiology, pathogenesis, classification. Local and universal pruritus. Plan of examination of patient with pruritus. Principles of general and topical therapy. Prevention of pruritus onsets.

Urticaria: etiology, pathogenesis, role of exogenous and endogenous factors. Significance of immune reactivity for urticaria development. Classification. Clinical types of urticaria. Quincke's edema. Diagnostics of urticaria, pathology, treatment principles. Urgent therapy of urticaria and Quincke's edema. Prevention of urticaria.

Atopic dermatitis: etiology and pathogenesis, conception of atopy, heredity significance, classification. Clinical types of atopic dermatitis. Differential diagnostics, diagnostic criteria of atopic dermatitis. Age-related stages of atopic dermatitis, clinical features. Estimation of atopic dermatitis severity by means of SCORAD index. Principles of general and topical treatment. Relapse prevention and skin care in atopic dermatitis.

Lichen simplex: etiology and pathogenesis, clinical features, diagnostics. treatment, prevention. Prurigo nodularis and prurigo infantilis. Etiology and pathogenesis, clinical features, diagnostics, treatment, prevention.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use.

### **1.13. Occupational dermatoses**

Occupational skin diseases: Definition, classification

Occupational skin diseases of chemical, physical and infectious origin, clinical appearance.

Principles of diagnostics of chemical occupational dermatoses, main occupational chemical irritants. Diagnostic value of patch skin tests. Documentation required for occupational disease registration. Occupational stigmata. Prophylactic medical examination and employment of patients. Occupational selection. Workplace preventive measures aimed at reduction of occupational skin diseases incidence. Prevention of occupational skin diseases in health care institutions.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use.

### **1.14. Papulosquamous diseases of the skin**

Psoriasis: prevalence, etiology, pathogenesis, role of genetic factors in the development of disease, classification. Clinical types of psoriasis, disease stages, seasonality, pathomorphology. Isomorphic reaction (Koebner phenomenon). Diagnostic phenomena of psoriasis, their explanation. Psoriatic arthritis. The significance of PASI and NAPSI indices for estimation of psoriasis severity.

Principles of general and topical therapy, depending on a disease stage. Relapse prevention.

Lichen planus: etiology, pathogenesis, pathomorphology. Clinical types of the disease affecting skin and oral mucosa. Isomorphic reaction (Koebner phenomenon). Wickham sign. Diagnostics and differential diagnostics. Treatment of lichen planus.

Pityriasis rosea: etiology, pathogenesis, clinical appearance, treatment, prevention.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use. Revelation of Wickham sign. Revelation of psoriatic triad.

### **1.15. Genodermatoses. Seborrhea. Acne**

Genodermatoses: definition.

Ichthyoses: classification. Clinical types of ichthyosis (ichthyosis vulgaris, X-linked, congenital) and their characteristics. Diagnostics and differential diagnostics. Treatment, prophylactic medical examination.

Inherited epidermolysis bullosa: simplex and dystrophic types. Clinical manifestations. Diagnostics. Differential diagnostics. Treatment. Prophylactic medical examination.

The significance of genetic counseling in the prevention of hereditary dermatoses.

Seborrhea, acne: etiopathogenesis, prevalence. Classification, clinical manifestations of particular types. Complications. Diagnostics and differential diagnostics.

Principles of etiotropic and pathogenetic systemic and topical treatment. Skin care. Remedies for skin care. Prevention of relapses.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use.

### **1.16. Neoplasms of the skin**

Neoplasms of the skin: definition, etiology, pathogenesis. Benign skin tumors: (papilloma, keratoma, fibroma, lipoma, nevi, angioma etc.), pathology, treatment. Signs of malignization of pigmentary nevus. Indications for removal.

Precancerous lesions of skin and mucosa. Promoting factors of precancerous lesions development. Classification of precancerous lesions of skin and mucosa. Clinical and pathomorphologic features of main obligatory and facultative cutaneous and mucosal precancers. Principles of treatment and prevention of cutaneous and mucosal precancerous lesions.

Malignant neoplasms of the skin: basal cell carcinoma, squamous cell carcinoma. Clinical types. Diagnostics and differential diagnostics. Principles of treatment of malignant tumors, prevention.



Cutaneous lymphomas: definition, classification, etiology, pathogenesis. Features of main clinical types. Pathomorphology, clinical and laboratory diagnostics. General principles of treatment. Prophylactic medical examination.

Kaposi sarcoma: definition, features of main clinical types. Kaposi sarcoma as HIV-associated disease. Diagnostics, treatment of Kaposi sarcoma. Prophylactic medical examination.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results.

### **1.17. Connective tissue autoimmune diseases. Vascular disorders of the skin**

Lupus erythematosus: etiology, pathogenesis. Classification. Cutaneous and mucosal clinical appearances of main types of lupus. Complications. Pathomorphology, diagnostics, differential diagnosis. The conception of systemic lupus. Diagnostic criteria for systemic lupus erythematosus. Principles of treatment of lupus erythematosus. Prevention of lupus erythematosus. Prophylactic medical examination.

Scleroderma: etiology, pathogenesis, classification. Clinical types of localized scleroderma (morphea, linear scleroderma, idiopathic atrophoderma of Pasini and Pierini etc). The conception of systemic sclerosis, cutaneous findings, diagnostic criteria. Diagnostics of scleroderma, pathomorphology. Treatment of scleroderma. Prophylactic medical examination.

Vascular disorders of the skin. Angioneuroses: Raynaud's disease, acrocyanosis, pernio. Allergic skin vasculites (superficial and profound). apillarites (hemosideroses). Etology, pathogenesis. Classification. Clinical manifestations. Diagnostics, pathomorphology, differential diagnostics. Treatment, prevention of vascular disorders of the skin. Prophylactic medical examination.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Revelation of Besnier sign.

### **1.18. Bullous dermatoses. Erythema multiforme**

Acantholytic pemphigus: etiology, pathogenesis, classification. Clinical types of pemphigus (pemphigus vulgaris, foliaceus, vegetans, erythematosus). Clinical diagnostics (Nicholsky sign, Asboe-Hansen sign etc.), cytological diagnostics, histological and immunofluorescent diagnostics of acantholytic pemphigus. Anti-desmoglein tests (pemphigus antibodies). Differential diagnostics with other bullous dermatoses. Principles of therapy of pemphigus. The conception of loading and maintaining corticosteroids dose. Prevention of relapses and side effects of therapy. Prophylactic medical examination. Medical and social assessment of acantholytic pemphigus patients.

Bullous pemphigoid, cicatricial pemphigoid: etiology, pathogenesis. Significance of concomitant malignancies. Clinical manifestations on skin and mucosa, pathomorphology, clinical and laboratory diagnostics, differential

diagnostics, principles of therapy, relapses prevention. Prophylactic medical examination.

Dermatitis herpetiformis: etiology, pathogenesis, significance of malabsorption syndrome. Cutaneous and mucosal clinical manifestations, pathomorphology. Jadassohn test, immunofluorescent diagnosis, differential diagnostics. Principles of treatment, relapse prevention. Prophylactic medical examination.

Erythema multiforme: etiology, pathogenesis, clinical forms and their manifestation in the skin and mucous membranes, Stevens-Johnson syndrome. Diagnostics, treatment, relapse prevention.

Practical component of the class: obtaining of complaints, history of life and disease of dermatological patient. Examination of skin and mucosa of dermatological patient. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Proper choice of medical formulation for external use. Revelation of Nikolsky and Asboe-Hansen sign.

## **2. Venereology**

### **2.1. Introduction to venereology**

Introduction to venereology. Short history of the venereology. Methods that are applied for examination of venereological patients. Interrelation of the venereology with other clinical disciplines. Influence of sexually transmitted diseases on social and economical matters.

Structure and biology of syphilis causative. Types of survival. Immunity in syphilis. Superinfection. Reinfection. General course of syphilis. Atypical syphilis. Experimental syphilis. Outcomes of syphilis.

### **2.2. Syphilis**

Contemporary features of clinical course of early syphilis and tertiary syphilis. Syphilis in pregnancy. Hereditary syphilis. Ways of transmission from mother to fetus. Classification. Clinical manifestations of early and late congenital syphilis. Diagnostics. Prevention. Latent and atypical syphilis. General principles of treatment and prevention of syphilis

### **2.3. Primary and secondary syphilis**

Syphilis. Morphological and biological features of *Treponema pallidum*. Routes of syphilis dissemination within human organism. Conditions and ways of contamination. The conception of syphilitic infection source and contact persons. Immunity in syphilitic patients, reinfection, superinfection. Experimental syphilis and its significance. General course and periodization of syphilis. Atypical course of syphilis. Classification of syphilis.

Incubation period. Factors affecting its duration.

Primary syphilis, duration, clinical manifestations. Clinical characteristics of different types of typical chancre, atypical and complicated chancres. Clinical features of chancres located on lips, tongue, gums, tonsils, chancres of transitional folds and oral mucosa. Differential diagnostics of primary syphilis manifestations. Chancre pathology. Clinical peculiarities of regional lymphadenitis and lymphangitis. Polyadenitis. Prodrome.

Secondary syphilis, duration, course features. Secondary syphilis of the skin and mucosa lasting less than 4 months and more than 4 months, differential



diagnostics. Clinical and histopathologic characteristics of cutaneous and mucosal lesions of secondary syphilis (syphilitic roseola, papular syphilid and its varieties, condylomata lata, pustular syphilides, syphilitic leukoderma, syphilitic alopecia syphilitic tonsillitis etc).

Practical component of the class: obtaining of complaints, history of life and disease of patient with sexually transmitted infection. Examination of skin and mucosa of patient with sexually transmitted infection. Identification of skin lesions, description of cutaneous and mucosal manifestations.

#### **2.4. Tertiary, atypical, congenital syphilis. Diagnostics, treatment and prevention of syphilis**

Tertiary syphilis (active and latent). Factors contributing to the development of tertiary syphilis, general characteristics of tertiary period, classification. Clinical and histopathologic features of tubercles and gummas located on the skin and mucous membranes: their types, course, complications and outcome. Affection of bones, joints, internal organs and nervous system. Serological tests during tertiary syphilis.

Congenital syphilis: definition, ways of transmission to fetus. Classification of congenital syphilis. Fetal syphilis, clinical manifestations. Clinical appearances and course features of early and late congenital syphilis.

Latent syphilis: classification, differential diagnostics of early and late latent syphilis, ways of revelation. Malignant syphilis. Transfusional syphilis.

Clinical significance of serological tests for syphilis diagnosis and their interpretation – classical Wassermann test, precipitation-based tests (RPR, VDRL), ELISA (enzyme-linked immunosorbent assay), TPHA (passive hemmagglutination), immobilization of *Treponema pallidum* test, IFA (immunofluorescence assay), and others. Non-treponemal and treponemal tests, fields of application. Biologic false-positive results of serological tests. Methods of cerebrospinal fluid examination.

Treatment of syphilis – general principles. The clinical protocol (guideline) of diagnostics and treatment of patients with sexually transmitted infections. Specific antisyphilitic drugs, their mechanism of action, dosage, introduction methods, side effects and complications, their prevention, contraindications. Basic syphilis treatment regimens. Nonspecific therapy of syphilis. The conception of seroresistance. Peculiarities of late syphilis treatment and treatment of syphilis in pregnant women. Preventive, prophylactic treatment, ex-juvantibus treatment of syphilis.

Hygiene and regimen of syphilitic patient. Criteria for recovery from syphilis. Prophylactic medical examination, striking off the register. Public and individual prevention of syphilis.

Practical component of the class: obtaining of complaints, history of life and disease of patient with sexually transmitted infection. Examination of skin and mucosa of patient with sexually transmitted infection. Identification of skin lesions, description of cutaneous and mucosal manifestations. Interpretation of laboratory results. Evaluation of rapid plasma reagin test results. Evaluation of passive hemmagglutination test results.

#### **2.5. Gonococcal infection. Non-gonococcal diseases of urogenital tract**

Gonorrhea: definition, epidemiology, etiology, pathogenesis, classification.

Main clinical manifestations of recent and chronic gonorrhoea and their complications in male and female patients.

Extragenital gonorrhoea (blepharconjunctivitis, pharyngitis, proctitis). Metastatic (disseminated) gonorrhoea (septicemia, endocarditis, arthritis, skin lesions).

Methods of laboratory diagnosis of gonococcal infection. Instructions for laboratory diagnosis of gonococcal infection. Susceptibility of gonococci to antibiotics, indications for application. Methods of instrumental diagnostics for gonorrhoea (ureteroscopy, colposcopy). Principles of general and topical therapy of gonorrhoeal urethritis and its complications. The clinical protocol (guideline) of diagnostics and treatment of patients with sexually transmitted infections. Criteria for recovery from gonorrhoea. Public and individual prevention of gonorrhoea.

Urogenital chlamydial infection: characteristics of causative agent and its life cycle, pathogenesis, classification (ICD-10). Ways of contamination. Clinical features of urogenital chlamydiosis in men and women, possible complications. Urethro-oculo-synovial syndrome (Reiter's disease). Laboratory diagnostics of chlamydial infection. Principles of general and topical therapy of chlamydial infection, prevention.

Trichomoniasis: causative agent, pathogenesis, classification. Clinical features of trichomoniasis in men and women, possible complications. Laboratory diagnostics of trichomoniasis. Principles of general and topical treatment, prevention.

Urogenital mycoplasmal infection: causative agents, pathogenesis, classification, ways of contamination. Clinical features of urogenital mycoplasmosis in men and women, possible complications. Laboratory diagnostics of mycoplasmal infection. Principles of general and topical therapy of genital mycoplasmal infections. Prevention of mycoplasmal infection.

Practical component of the class: obtaining of complaints, history of life and disease of patient with sexually transmitted infection. Examination of skin and mucosa of patient with sexually transmitted infection. Identification of skin lesions, description of cutaneous and mucosal manifestations. Microscopic revelation of gonococcus

## **2.6. HIV-infection**

Characteristics of human immunodeficiency virus (HIV).

HIV-infection: pathogenesis, epidemiology, immunologic disorders, classification, clinical appearance. Affection of the skin and mucous membranes in HIV patients (Kaposi's sarcoma, lymphomas, skin malignancies, bacterial, viral, mycotic lesions, seborrheic dermatitis etc). Clinical and laboratory diagnostics, principles of HIV infection therapy. Acquired immunodeficiency syndrome prevention, including prevention in health care institutions.



**CURRICULAR CHART OF EDUCATIONAL DISCIPLINE «DERMATOVENEREOLGY»**

Section, topic #	Section (topic) name	Number of hours			Self-studies	Form of control
		lectures (supervised student independent work)	supervised student independent work	practical		
<b>6<sup>th</sup> semester</b>						
<b>1. Dermatology</b>		<b>14</b>	<b>3</b>	<b>58</b>	<b>69</b>	
1.1.	Introduction to dermatology. Structure and functions of human skin	2	1	-	-	
1.2.	Skin pathology. Diagnostics in dermatology	-	-	3	3	Interview, tests, electronic tests, solving of situational tasks
1.3.	Principles of therapy of dermatoses	-	-	3	3	Interview, tests, electronic tests, solving of situational tasks
1.4.	Pustular diseases of the skin (pyodermas)	2	0,5	3	3	Interview, tests, electronic tests, solving of situational tasks
1.5.	Fungal infections of the skin (mycoses)	2	0,5	-	-	
1.6.	Cutaneous malasseziosis. Candidiasis. Chronic mycoses	-	-	3	3	Interview, tests, electronic tests, solving of situational tasks
1.7.	Quarantine mycoses. Pseudomycoses	-	-	3	4	Interview, tests, electronic tests, solving of situational tasks
1.8.	Viral infections of the skin	-	-	3	4	Interview, tests, electronic tests, solving of situational tasks
1.9.	Mycobacterial infections of the skin	-	-	3	4	Interview, tests, electronic tests, solving of situational tasks

1.10	Parasitic infections of the skin	-	-	3	4	Interview, tests, electronic tests, solving of situational tasks
1.11.	Allergic dermatoses	2	0,5	3	4	Interview, tests, electronic tests, solving of situational tasks
1.12.	Atopic dermatitis and related disorders	2	0,5	3	4	Interview, tests, electronic tests, solving of situational tasks
1.13.	Occupational dermatoses	-	-	3	4	Interview, tests, electronic tests, solving of situational tasks
1.14.	Papulosquamous diseases of the skin	-	-	3	4	Interview, tests, electronic tests, solving of situational tasks
1.15.	Genodermatoses. Seborrhea. Acne	-	-	4	4	Interview, tests, electronic tests, solving of situational tasks, oral credit
<b>7<sup>th</sup> semester</b>						
1.16.	Neoplasms of the skin	-	-	6	7	Interview, tests, electronic tests, solving of situational tasks
1.17.	Connective tissue autoimmune diseases	2	0,5	-	-	Interview, tests, electronic tests, solving of situational tasks
	Vascular disorders of the skin	2	0,5	-	-	
	Connective tissue autoimmune diseases. Vascular disorders of the skin	-	-	6	7	
1.18.	Bullous dermatoses. Erythema multiforme	-	-	6	7	Interview, tests, electronic tests, solving of situational tasks
<b>2.</b>	<b>Venereology</b>	<b>6</b>	<b>2</b>	<b>18</b>	<b>23</b>	
2.1.	Introduction to venereology	2	0,5	-	-	
2.2.	Syphilis	2	0,5	-	-	
2.3.	Etiology and pathogenesis of syphilis. Primary and secondary syphilis	-	-	6	7	Interview, tests, electronic tests, solving of situational tasks
2.4.	Tertiary, atypical, congenital syphilis. Diagnostics, treatment and prevention of syphilis	-	-	6	8	Interview, tests, electronic tests, solving of situational tasks
2.5.	Gonococcal infection. Non-gonococcal diseases of urogenital tract	-	-	6	8	Interview, tests, electronic tests, solving of situational tasks. Training case history. Oral exam
2.6.	HIV-infection	2	1	-	-	Objective structured clinical examination
		<b>20</b>	<b>3</b>	<b>76</b>	<b>92</b>	



## INFORMATION AND INSTRUCTIONAL UNIT

### LITERATURE

#### **Basic (relevant):**

1. Chebotarev, V. V. Dermatovenereology : Textbook / V. V. Chebotarev, M. S. Askhakov. – Moscow : «Geotar-Media», 2020. – 627 p.

#### **Additional:**

2. Adaskevich, U. P. Skin diseases and sexually transmitted infections: Handbook / U. P. Adaskevich (Compiler and editor). – Vitebsk : VSMU, 2016. – 398 p.

3. Dermatology 2 volume set / J. L. Bologna [et al]. – 4th ed. – Elsevier Limited, 2017. – 2880 p.

4. Fitzpatrick's Dermatology In General Medicine, Eighth Edition : Two Volumes / S. Kang [et al]. – 9th ed. – McGraw Hill Medical, 2019. – 1866 p.

5. Rook's Textbook of Dermatology, 4 volume set / C. Griffiths [et al]. – 9th ed. - Wiley-Blackwell, 2016. – 4696 p.

### METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

Time, allotted for self-study, may be used by students on:  
 preparations for the lectures, seminars, practical classes;  
 preparations for the credit and exam on educational discipline;  
 studying of topics (matters) submitted for self-study;  
 solving of situational tasks;  
 taking notes of educational literature.

### METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF SUPERVISED STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

Basic forms of organization of supervised student independent work:  
 studying of topics and problems that are not submitted to the lectures.

Control of supervised student independent work takes the form of:  
 marking the oral replies to the question;  
 individual interview.

### LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for competences assessment:

#### **Oral form:**

interviews;  
 credit;  
 exam;

#### **Written form:**

tests.



training case history.

**Oral-written form:**

solving of situational tasks.

**Technical form:**

electronic tests.

**Simulational form:**

Objective structured clinical examination.

**LIST OF AVAILABLE TEACHING METHODS**

Linear (traditional) method (lecture, practical classes)

**LIST OF PRACTICAL SKILLS**

1. Obtaining of the complains and history of dermatological patient.
2. Examination of skin and visible mucosa of dermatological patient.
3. Identification of skin lesions, description of cutaneous and mucosal manifestations.
4. Proper choice and methodology of application of topical medical formulations.
5. Application of Wood's lamp for diagnostics of dermatoses.
6. Application of Baltzer test with Iodine solution.
7. Microscopic revelation of causatives of fungal infections.
8. Microscopic revelation of scabies mites.
9. Revelation of Nikolsky and Asboe-Hansen signs.
10. Revelation of Weekham sign.
11. Revelation of Besnier sign.
12. Revelation of psoriatic triad.
13. Interpretation of laboratory results.
14. Obtaining of complaints and history of patient with sexually transmitted infection.
15. Examination of skin and visible mucosa of patient with sexually transmitted infection.
16. Interpretation of rapid plasma reagin test results.
17. Interpretation of passive hemagglutination test results.
18. Microscopic revelation of gonococcus.

**LIST OF REQUIRED EQUIPMENT**

Computer;  
 Magnifier;  
 Portative lighter;  
 Microscopic slide;  
 Pincer;  
 Wood's (UV) lamp;  
 Microscope;  
 Disposable spatula for oral cavity examination;

Disposable rubber gloves.

## LIST OF LECTURES

### 6<sup>th</sup> semester

1. Introduction to dermatology. Structure and functions of human skin.
2. Pustular diseases of the skin (pyodermas).
3. Fungal infections of the skin (mycoses).
4. Allergic dermatoses.
5. Atopic dermatitis and related disorders.

### 7<sup>th</sup> semester

6. Connective tissue autoimmune diseases.
7. Vascular disorders of the skin.
8. Introduction to venereology.
9. Syphilis
10. HIV-infection

## LIST OF PRACTICAL STUDIES

### 6<sup>th</sup> semester

1. Skin pathology. Diagnostics in dermatology.
2. Principles of therapy of dermatoses.
3. Pustular diseases of the skin (pyodermas).
4. Cutaneous malasseziosis. Candidiasis. Chronic mycoses.
5. Quarantine mycoses. Pseudomycoses.
6. Viral infections of the skin.
7. Mycobacterial infections of the skin.
8. Parasitic infections of the skin.
9. Allergic dermatoses.
10. Atopic dermatitis and related disorders.
11. Occupational dermatoses.
12. Papulosquamous diseases of the skin.
13. Genodermatoses. Seborrhea. Acne.

### 7<sup>th</sup> semester

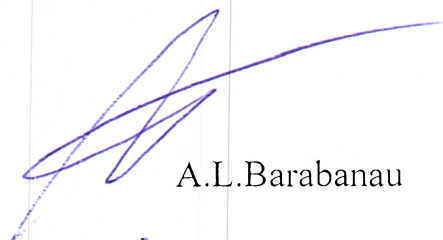
1. Neoplasms of the skin.
2. Connective tissue autoimmune diseases. Vascular disorders of the skin.
3. Bullous dermatoses. Erythema multiforme.
4. Introduction to venereology. Primary and secondary syphilis.
5. Tertiary, atypical, congenital syphilis. Diagnostics, treatment and prevention of syphilis.
6. Gonococcal infection. Non-gonococcal diseases of urogenital tract.

**PROTOCOL OF THE CURRICULUM APPROVAL  
BY OTHER DEPARTMENTS**

Title of the discipline requiring approval	Department	Amendments to the curriculum of the academic discipline	Decision of the department of skin and venereal diseases (date, protocol # )
Surgery	Surgical diseases	No amendments proposed	(protocol # 2 of 8.09.2023);
Infection diseases	Infection diseases	No amendments proposed	protocol # 2 of 8.09.2023);
Obstetrics and Gynecology	Obstetrics and Gynecology	No amendments proposed	protocol # 2 of 8.09.2023);
Urology	Urology	No amendments proposed	protocol # 2 of 8.09.2023);
Phthisiopulmonology	Phthisiopulmonology	No amendments proposed	protocol # 2 of 8.09.2023);
Clinical pharmacology.	Clinical pharmacology	No amendments proposed	protocol # 2 of 8.09.2023);
Internal diseases	Internal diseases #1	No amendments proposed	protocol # 2 of 8.09.2023);
Internal diseases	Internal diseases #2	No amendments proposed	protocol # 2 of 8.09.2023);
Epidemiology	Epidemiology	No amendments proposed	protocol # 2 of 8.09.2023);

**COMPILERS/AUTHORS:**

Associate Professor of the Department of Skin and Venereal Diseases of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor



A.L.Barabanau

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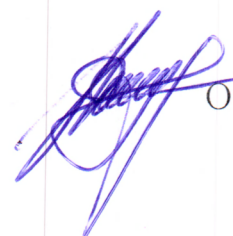


A.P.Muzychenko

Curriculum content, composition and the accompanying documents comply with the established requirements

Head of the Medical Faculty for International students of the Educational Institution «Belarusian State Medical University»

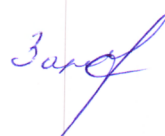
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O.S.Ishutin

Methodologist-expert of the Educational Institution «Belarusian State Medical University»

13. 11. 2023



S.V.Zaturanava







