

MEDICAL UNIVERSITY PLOVDIV
MEDICAL FACULTY

PROGRAMME

OF

RHEUMATOLOGY

Cycle of Internal Medicine Part I

Approved by Department council at 04 February 2020

Approved by Faculty council by Protocol № 5 at 08 July 2020

Cycle Rheumatology Curriculum

Subject	Exam in semester	Hours				Hours by year and semester
		Total	Lectures	Practical classes	Credit	IV course
Rheumatology	VIII					VII semester
		30	10	20	*12.1	10/20

- As per the whole Module Internal Medicine part I

Subject Name: „Rheumatology”

Type of subject considered by EDI:

Mandatory

Study degree:

Master /M/

Forms of training:

Lectures, Practical classes, Self-training

Course of training: IV course

Duration of training: One semester

Hours:

10 hours lectures, 20 hours practical classes

Study material – study books, Self-training materials:

Textbooks and teaching aids in Rheumatology for medical students

1. Rheumatic diseases - a short course. Sheitanov, J., S., CIM, 1988, 206 p.
2. Practical guide to rheumatology. Rashkov, R. and J. Sheitanov., S., CIM, 2002, 238 p.
3. Rheumatoid arthritis. Sheitanov, J. and I. Sheitanov. S., CIM, 2002, 164
4. Modern aspects in the pathogenesis of rheumatoid arthritis. Kolarov, Zl., S., UI “St. Kl. Ohridski”, 1999, 175 p.
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6. Systemic connective tissue diseases / collagenosis /. Sheitanov, J. and R. Rashkov. S., CIM, 1999, 235 p.
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10. Gout. Kanev, K., S., Med. and Phys., 1989, 114 p.
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12. Extraarticular soft tissue diseases / soft tissue rheumatism /. Dinev, D., S., Diagnosis Press, 2003, 72 p.
13. Internal diseases. Ed. K. Chernev, volume II, 2003
14. Rheumatic diseases. Ed. V.A. Носоной, Н.В. Bunchuka., М., "Medicine" 1997.
15. Arthritis and Allied Conditions. Ed. Koopman, W. J., 13-th Ed., vol. 1 and 2, 1997.
16. Textbook of Rheumatology, Fifth Ed., Editors: W.Kelley, S.Ruddy, E.Harris and C.Sledge, vol 1 и 2, 1997.
17. Primer on the Rheumatic Diseases, Edition 15, 2010.
18. Rheumatology - Journal of the Scientific Society of Rheumatology
19. Ann. Rheum Dis. - Journal of the European League for Rheumatism / EULAR /
20. Arthritis and Rheumatism - a journal of the American College of Rheumatology

Self-training and extracurricular work of the student

The independent work is managed by the assistant, who guides the student both in the literary sources and in the methods of their mastering. They also provide training tests, incl. on line, for independent work and exercises of students.

Cooperation between teachers and students, which is expressed in:

- Commitment of the teacher to the student and his preliminary preparation, current difficulties in mastering the material and opportunities with an individual learning program to achieve more knowledge.
- Use of consultation hours.
- Involvement of students in teams for research tasks, research, projects, etc.

Forms of grading:

Through current assessments and final examination assessment as part of the overall assessment of Internal Medicine 1 part

The current grades provided for in the curriculum of the course are given for:

- a. The student's results in seminars, course and individual assignments, the student's work with the lecturer on research and projects, etc .;
- b. Tests or student work.

Formation of the grade: The grade is one and is the result of the average value of all components of the exam - grade from a practical exam, test, written answer to two questions, oral examination, provided that none of them the student has received a poor grade.

The final grade determines the extent to which the student has achieved the learning goal set at the beginning. It is multicomponent and includes a colloquium assessment in the fifth and sixth semesters, a written final exam, an oral final exam assessment, a practical exam and the assessments from the current control.

The components involved in the formation of the assessment and the coefficients of significance of the discipline are determined by the Academic Council with the adoption of this academic standard of the discipline.

Aspects of forming of the grade

Clear standards for evaluation have been developed. An average grade is formed from each semester, the conducted colloquia, from the written theoretical exam (after a successful entrance test with a limit of 65%) and the practical exam.

- Weak (2) receives a student with scarce knowledge that cannot serve as a basis for the next levels of education in other clinical disciplines.

- Intermediate (3) is given to a student who reproduces the knowledge in a "ready-made scheme", missing the main points of the developed topic; there is no readiness for independent use of the acquired knowledge and professional competencies; the terminology is not mastered satisfactorily, the presentation is characterized by poor language; only some basic practical skills have been mastered.

- Good (4) receives a student who develops the topic descriptively, reproductively, has limited independence in using the acquired knowledge and acquired professional competencies, in the presentation, although there is a good language culture, inaccuracies in the concepts used; who has mastered basic practical skills but not to the full and has some gaps.

- Very good (5) gets a student who develops the topic independently productively, non-standard, looking for a new algorithm and analysis of the used literature data; makes an attempt to present and substantiate his thesis; adequately uses the concepts from the scientific field of the studied discipline, has a good language culture; handles very well practically to the bed of the patient with small gaps.

- Excellent (6) is awarded to a student who independently, logically, with the presence of a creative element brings out the topic; reasonably and originally uses and interprets the literature related to the revealed issue; is well informed and ready to use the acquired knowledge and professional competencies; has the accuracy and rich linguistic culture of the exhibition, practically handles perfectly to the patient's bed. At the beginning of the academic year of the lectures and exercises the students get acquainted with the assessment standards, the procedures for conducting current control and the opportunities for receiving feedback on their progress during the semester.

Semester exam:

Yes /Test, written theoretical exam and practical exam/

State exam:

Yes, as a part of Internal Medicine

Leading lecturer:

Habilitated lecturer from the Department of Propedeutics of Internal Medicine

Department:
Propedeutics of internal medicine

ANNOTATION

The main goal of the training in Rheumatology is to build theoretical and practical training of future doctors on the recognition, diagnosis, conservative treatment, as well as rehabilitation and prevention of diseases of the musculoskeletal system and connective tissue. A distinctive feature of the specialty is the presence of overlapping areas with a significant number of other internal medicine, surgery and therapeutic specialties. During the course in rheumatology students learn about the adequate behavior in emergencies in rheumatology - gout, acute monoarthritis, vasculitis and others.

MAIN GOALS

The main tasks of the medical specialty Rheumatology are the prevention, diagnosis, treatment and rehabilitation of patients with the following rheumatic diseases: inflammatory and degenerative joint diseases, connective tissue diseases, bone diseases, soft tissue diseases, diseases caused by crystals, and hereditary diseases of the musculoskeletal system.

The principles of training are consistent with:

- the mission and the concept for the Medical University, Plovdiv
- the volume and the credit rating of the course (according to the ECTS system), according to the curriculum;
- the qualification characteristic of the specialty;

The purpose of the training in Rheumatology is in accordance with the place of the discipline in the training in medicine and with the chronology in the curriculum.

Course content The content of the topics for lectures and exercises is presented sequentially so that the lecture and related exercises unite specific disease units. Knowledge from previously and in parallel studied disciplines such as anatomy, pathoanatomy, physiology, pathophysiology, pharmacology, radiology, surgical diseases is applied. 3. Prerequisites for training in internal medicine. Students study their knowledge of anatomy, histology, physiology, pathophysiology and pathoanatomy, propaedeutics of internal diseases while studying rheumatology.

Academic resources

The academic staff of Rheumatology training for medical students includes
2 habilitated lecturers - with a specialty in Internal Medicine and Rheumatology,
2 lecturers with a scientific degree "Doctor" specialist in Internal Medicine and Rheumatology

3 non-habilitated lecturers with specialty Rheumatology.

The lectures are delivered by a habilitated lecturer (associate professor or professor) with an acquired scientific degree in the respective doctoral program. Up to 10% of the lectures are assigned to non-habilitated lecturers with a scientific degree in a relevant doctoral program in Internal Medicine.

The practical exercises are led by habilitated and non-habilitated lecturers (professor, associate professor, chief assistant, assistant). The non-habilitated lecturers have a master's degree in medicine and are appointed after a competition.

Material resources

The training in rheumatology is conducted in the Department of Propaedeutics of Internal Medicine at MU-Plovdiv. The exercises are held in the Rheumatology Clinic, Kaspela University Hospital (100% of the groups in Bulgarian and English), at the patient's bedside or in seminar rooms. One of the halls is provided with equipment for multimedia presentation. The technical means applied in the training include - video films, multimedia presentations, collections of ECG recordings, radiographs, joint ultrasound.

The most modern methods for instrumental diagnostics are provided - high-frequency ultrasound devices - 3 pieces, MRI, Densitometer, Capillaroscope, Polarizing microscope - 2 pieces.

Lecture training. The lectures are prepared and delivered in the form of multimedia presentations. The volume and format of the lectures are subordinated to the respective for the semesters plan - program.

Practical exercises Conducted in groups. Methodical instructions, manuals and teaching aids are provided for the exercises. Each student is given individual tasks. The following is checked: - the student's self-preparation on the topic of each exercise - the results (acquired knowledge and skills) from the specific exercise. As a methodological form, preference is given to the independent work of each student. Discussions are held with groups of students, before which the reporting student substantiates his thesis on specific clinical cases.

Information resources. Basic literature. Sites

Rheumatology training for medical students is subject to the curriculum. At the beginning of each school year, students are informed about the main recommended literature in Rheumatology. From the lecturers and the assistants in the course of the educational process data are supplemented for Internet resources with appropriate materials for the training. Textbooks and teaching aids.

EXPECTED RESULTS

The main results of the training in Rheumatology as part of the Course in Internal Medicine are related to the purpose and objectives of the training - acquiring theoretical and practical training of future physicians for comprehensive care of the patient suffering from rheumatic

disease, including thorough history taking, proper use of the basic physical and instrumental methods of examination, diagnosis and differential diagnosis and acquisition of skills for assessing the need for specialized counseling of a patient suffering from the most common rheumatic diseases.

Lecture Course:

Rheumatology Topics

1	27.11.19	Rheumatoid arthritis – definition, etiology, pathogenesis, clinical presentations/clinical forms, disease course; Diagnosis and differential diagnosis. Treatment. Remission criteria. Prognosis and disability assessment. .
2	4.12.19	Seronegative spondyloarthropathies – ankylosing spondylitis, psoriatic arthritis, reactive arthritis.
3	11.12.19	Crystal arthropathies – gout - definition, prevalence, localization, etiology, pathogenesis, clinical presentation/clinical forms, disease course, diagnosis, differential diagnosis, management. Pseudogout.
4	18.12.19	Systemic lupus erythematosus - definition, prevalence, etiology, pathogenesis, clinical presentation/clinical forms, disease course, diagnosis, differential diagnosis, management. Secondary antiphospholipid syndrome – diagnosis, active and supportive treatment.
5	25.12.19	Osteoarthritis - definition, prevalence, localization, etiology, pathogenesis, clinical presentation/clinical forms, disease course, diagnosis, differential diagnosis, management.

Practical Classes:

№	Topic	HOURS
1.	Semiotics in rheumatic patients. Taking history of a rheumatic patient. Physical examination of musculoskeletal system. Interpretation of main arthritis syndromes.	2
2.	Drug therapy of rheumatic patients.	2
3.	Rheumatoid arthritis - complete physical exam. Clinical manifestations.	2
4.	Rheumatoid arthritis – treatment.	2

5.	Seronegative spondyloarthropathies. Physical examination of patients with AS. Specific radiographic changes. Management and physical therapy.	2
6.	Psoriatic arthritis - clinical picture, management. Reactive arthritis. Reiter's syndrome - definition, etiology, pathogenesis, clinical picture and therapy. Arthritis in Patients with Inflammatory Bowel Disease	2
7.	Systemic lupus erythematosus. Diagnostic criteria. Clinical manifestations. Therapeutic strategies.	2
8.	Sclerodermia, Dermato/polymyositis, Vasculitis - etiology, pathogenesis, clinical picture, investigations and management.	2
9.	Gout. Clinical picture and investigations. Management of acute and chronic gout. Osteoarthritis, osteoporosis - clinical picture and management.	2
10.	EXAM - rheumatic diseases.	2

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**CONSPECT FOR INTERNAL MEDICINE
IV YEAR
INTERNAL MEDICINE PART I**

1. Heart glucosides.
2. Rhythm and conduction disorders.
3. Antiarrhythmic agents.
4. Congestive heart failure, hemodynamic classification, treatment.
5. Acute heart failure.
6. Cardiogenic shock.
7. Rheumatism.
8. Chronic pulmonary heart.
9. Infectious endocarditis.
10. Acquired defects of the mitral valve.
11. Acquired defects of the aortic valve.
12. Diseases of the myocardium. Myocarditis.
13. Diseases of the myocardium. Cardiomyopathies.
14. CHD. Classification, etiology, risk factors.
15. Antianginal agents.
16. Stable angina.
17. Unstable angina.
18. Myocardial infarction - etiology, pathogenesis, risk factors, clinic.
19. Myocardial infarction - complications, DD, treatment.
20. Arterial hypertension.
21. Congenital heart defects.
22. Pericarditis.
23. Rheumatoid arthritis.
24. Lupus erythematosus.
25. Gout.

C O N S P E C T

INTERNAL DISEASES FOR MEDICAL STUDENTS – STATE EXAM

1. Chronic Obstructive Pulmonary Disease – COPD
2. Bronchial asthma
3. Pneumonias
4. Pulmonary embolism, Pulmonary infarction
5. Pulmonary tuberculosis
6. Pleuritis. Dry and exudative. Adhesive pleuritis
7. Infective endocarditis
8. Mitral valve stenosis
9. Mitral valve insufficiency / regurgitation/
10. Aortic stenosis
11. Aortic regurgitation
12. Idiopathic Arterial hypertension. Symptomatic arterial hypertension.
13. Ischemic heart disease.
14. Myocardial infarction
15. Myocarditis. Cardiomyopathies
16. Rhythm and conduction disturbances
17. Pericarditis
18. Acute and chronic heart failure
19. Rheumatoid arthritis
20. Osteoarthritis
21. Systemic lupus erythematosus
22. Gout, Uric acid crystal induced arthritis
23. Acute and chronic glomerulonephritis
24. Nephrotic syndrome and nephropathy
25. Acute and chronic pyelonephritis
26. Nephrolithiasis
27. Acute and chronic renal failure
28. Acute and chronic gastritis
29. Ulcer disease
30. Chronic ulcerative colitis and Chron's disease
31. Bowel cancer, colorectal carcinoma
32. Chronic hepatitis
33. Liver cirrhosis and liver failure, Hepatic coma
34. Cholelithiasis. Cholecystitis
35. Chronic pancreatitis
36. Iron deficiency anemia
37. Megaloblastic anaemia, Vit B12 deficiency anaemia
38. Haemolytic anaemias
39. Acute (blastic) leukoses
40. Chronic myeloleukosis and Chronic lympholeukosis
41. Morbus Hodgkin (lymphogronulomatosa malignum)
42. Multiple myeloma
43. Polycythemia vera
44. Thrombocytopenia
45. Capillarotoxicosis. Schonlein- Hennoch disease.

46. Thyroiditis
47. Thyrotoxicosis. Graves' disease
48. Myxoedema
49. Acromegaly
50. Hypercorticism. Cushing disease.
51. Hypocorticism. Addison's disease.
52. Hypoparathyroidism. Hyperparathyroidism
53. Diabetes mellitus
54. Antibiotic therapy, Principles of treatment with antibiotics
55. Cytostatic agents, Treatment with cytostatic and immunosuppressive agents
56. Glucocorticoids and adrenocorticotrophic hormone (ACTH), Classification of
Glucocorticoids and treatment with Glucocorticoids
57. Treatment of coronary artery disease (Ischemic heart disease)
58. Treatment of Rhythm and conduction disturbances
59. Heart glycosides and diuretics