



Non-Commercial Educational Institution
Educational-Scientific-Production Complex
«International University of Kyrgyzstan»

Quality Management System
Academic and methodological complex of the discipline
«Nephrology»
MEP of «General Medicine» ISM IUK

INTERNATIONAL UNIVERSITY OF KYRGYZSTAN
INTERNATIONAL SCHOOL OF MEDICINE
Department of Therapy



Syllabus

OF THE DISCIPLINE
"RHEUMATOLOGY"

Main educational program

specialty of **560001 General Medicine (for foreign citizens)**
(code, direction name / specialty)

qualification of the graduate: general practitioner
(the qualification of the graduate is indicated in accordance with SES HPE)

Full-time education

Course 3

Semester 6

Credit / Exam (6)

Total curriculum credits 1.5

Work program developer: teacher Shuvalova M.S.

Head of the Department: Prof. Baitova G. M.

Bishkek 2021



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1. The work program of the academic discipline

1.1.Explanatory note

- **Mission of the ISM IUK** – *training of competent specialists in the field of medicine, consistent with international standards and traditions of medical ethics, ready for continuous professional growth using modern achievements of science and practice, to solve public health problems.*

Annotation of the academic discipline

Internal diseases is one of the leading disciplines that form clinical thinking among students, laying a solid foundation for future professional activity. This discipline is mandatory for studying at a medical university.


Rheumatology is one of the main sections, the study of which lays the theoretical knowledge and practical skills of examination of somatic patients with diseases of the musculoskeletal system.

The study of the rheumatology section provides 54 hours, of which 14 hours are lectures, 18 hours are devoted to practical classes, 22 hours are intended for SRS and SRSP. At the end of the cycle, an exam is provided.

The result of the cycle is the awarding of points according to the BRS university program, where the points for attendance, activity in the classroom and the results of the control survey are summed up.

The curriculum for the discipline "Rheumatology" is compiled on the basis of the new "State educational standard of Higher Professional Education of the 3rd generation" in the specialty - "General medicine", in accordance with the requirements of the reform of the system of higher medical education, meets the strategy of integrating the goals and objectives of training.

The task of the Department of Therapy in the 3rd and 4th courses is to train a general practitioner who knows the basics of clinical research of a rheumatological patient with subsequent symptoms and syndromes. As well as knowing the basics of etiology, clinical

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picture, classification, treatment of the main, most common diseases, ways of their prevention.

• **Goals and objectives of the discipline**

The purpose of mastering the academic discipline "Rheumatology" is to study and master the theoretical sections of rheumatology, acquire in-depth competencies in the diagnosis, treatment, prevention and rehabilitation of rheumatological diseases necessary for conducting professional activities as a general practitioner.

Teaching tasks:

1. Introduce the key concepts of rheumatology and the organization of the rheumatology service.
2. To give the basics for mastering the methods of examination of a rheumatological patient.
3. To study nosological forms related to the competence of a rheumatologist.
4. To master the most important approaches to the treatment of rheumatological diseases.

• **Place of discipline in the structure of MEP (prerequisites, postrequisites).**

Requirements for the preliminary training of the student:

To study this academic discipline (module), the following knowledge, skills and abilities formed by previous disciplines are required:

Disciplines and practices for which the development of this discipline (module) is necessary as a prior:

- Pathophysiology, clinical pathophysiology
- Propaedeutics of internal diseases
- Pharmacology
- Pathological anatomy
- Psychology and Pedagogy



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- Normal physiology
- **The competencies of students formed as a result of mastering the discipline, the planned results of mastering the discipline**

The student's competencies formed as a result of mastering the discipline:

Professional competencies:

PC-2 is capable and ready to conduct and interpret a survey, physical examination, clinical examination, the results of modern laboratory and instrumental studies, write a medical record of an outpatient and inpatient patient of an adult and a child.

PC-3 is capable of conducting pathophysiological analysis of clinical syndromes, substantiating pathogenetically justified methods (principles) of diagnosis, treatment, rehabilitation and prevention among adults and children, taking into account their age and gender groups;

Diagnostic activity:

PC-11 is capable and ready to make a diagnosis based on the results of biochemical and clinical studies, taking into account the course of pathology in organs, systems and the body as a whole;

PC-12 is able to analyze the patterns of functioning of individual organs and systems, use knowledge of anatomical and physiological features, basic methods of clinical and laboratory examination of adults and children, for timely diagnosis of diseases and pathological processes;

PC-13 is able to identify the main pathological symptoms and syndromes of diseases in patients, using knowledge of the basics of biomedical and clinical disciplines, taking into account the course of pathology in organs, body systems as a whole, analyze the patterns of functioning of organs and systems in various diseases and pathological processes, use an algorithm for diagnosis (main, concomitant, complications) taking into account ICD-10, perform basic diagnostic measures to identify urgent and life-threatening conditions;



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Medical activity:

PC-14 is able to perform basic therapeutic measures for the most common diseases and conditions in adults and children;

PC-15 - is able to prescribe adequate treatment to patients in accordance with the diagnosis;

PC-16 is able to provide first aid to adults and children in case of emergency and life-threatening conditions, to send patients to hospital in a planned and emergency manner.

Rehabilitation activities

PC-19 is capable and ready to apply rehabilitation measures (medical, social and professional) among adults and children.

After mastering this discipline, the student:

Will know:

- anatomical and physiological, age-sexual and individual features of the structure and development of a healthy and sick person;*
- fundamentals of the organization of outpatient and inpatient care for children, adolescents and adults, modern organizational forms of work and diagnostic capabilities of outpatient services;*
- concepts of etiology, pathogenesis, morphogenesis, pathomorphosis of the disease in adults and adolescents, principles of classification of diseases; basic concepts of general nosology;*
- etiology, pathogenesis, diagnosis, treatment and prevention of the most common diseases among the population;*
- the main patterns of development and vital activity of the body of an adult, child and teenager based on the structural organization of cells, tissues and organs;*

Will be able to:




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- *participate in the organization and provision of therapeutic and preventive, sanitary and anti-epidemic, preventive and rehabilitative care for adolescents and adults, taking into account the socio-professional and age-sexual structure;*
- *collect anamnesis; conduct a survey of the patient and his relatives, conduct a physical examination of the patient of various ages (examination, palpation, auscultation, blood pressure measurement, determination of pulse characteristics, respiratory rate, etc.),*
- *interpret the results of the most common methods of laboratory and functional diagnostics, thermometry to identify pathological processes in human organs and systems;*
- *interpret the results of the examination, make a preliminary diagnosis to the patient, outline the scope of additional studies to clarify the diagnosis; formulate a clinical diagnosis;*
- *to substantiate the nature of the pathological process and its clinical manifestations, the principles of pathogenetic therapy of the most common diseases;*

Will own:

- *methods of maintaining medical accounting and reporting documentation in medical and preventive institutions of the healthcare system;*
- *methods of general clinical examination of patients;*
- *interpretation of the results of laboratory, instrumental diagnostic methods in patients;*
- *methods of maintaining medical accounting and reporting documentation in medical and preventive institutions of the healthcare system;*
- *interpretation of the results of laboratory, instrumental diagnostic methods in patients;*
- *an algorithm for making a preliminary diagnosis to patients with subsequent referral for additional examination and to specialist doctors; an algorithm for making a detailed clinical diagnosis.*
- **Will understand**

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- the results of biochemical and clinical studies of a healthy person and rheumatological diseases.

- Will be able to

-use physical examination methods in a healthy person

-use the knowledge of laboratory and instrumental research in the further training program and determining treatment tactics

-use the data of an objective examination and the results of the patient's examination in writing a student's medical history

receive information from various sources, work with information in global computer networks, use the capabilities of modern information technologies to solve professional tasks;

conduct a conversation with the patient about health promotion, healthy lifestyle and disease prevention.

- Able to analyze:

- the state of health, the influence of lifestyle factors, the environment and the organization of medical care on it;

- the goals and significance of the patient's research method and their purpose, taking into account indications and contraindications.

1.2. Recommended educational technologies

The following educational technologies are used to master the students of the academic discipline "Rheumatology", gain knowledge and form professional competencies:

- lecture-visualization,
- problem lecture,
- class-conference,
- debates,
- brainstorming,



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- role-playing educational game,
- small group method,
- analysis of clinical cases,
- solving situational problems•
- student's research work,
- preparation and defense of abstracts.
- classes using simulators, dummies, simulators.

1.3. Scope of discipline and types of academic work

The form of study is full-time

According to the curriculum of 2021	6th semester	Total	
		In hours	In the credits
Total labor intensity	54	54	1,5
Classroom work	32	32	0,8
Lectures	14	14	0,4
Practical exercises	18	18	0,5
Independent work	11	11	0,3
Independent work	11	11	0,3
Type of final control	Test, exam		

1.4. Structure of the discipline

1.4.1. Thematic plan for the study of the discipline

	Classroom classes	Total	Indepen	Indepen	Emerging compet	Educational	Forms of current



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№	The name of the sections and topics of the discipline (lectures and practical exercises)	lectures	seminars	practical class							
	Module 1										
1	Topic 1. Introduction to rheumatology. Research methods in rheumatology.			2		2	1	1	PC-2, PC-3, PC-11, PC-12, PC-13, PC-14, PC-15, PC-16, PC-19	lecture using video materials	testing
2	Topic 2. Acute rheumatic fever and rheumatic heart defects.	2		2		4	1	1	PC-2, PC-3, PC-11, PC-12, PC-13, PC-14, PC-15, PC-16, PC-19	lecture using video materials	testing
3	Topic 3. Rheumatoid arthritis	2		2		4	1	1	PC-2, PC-3, PC-11, PC-12, PC-13, PC-14, PC-15, PC-16, PC-19	lecture using video materials	testing



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4	Topic 4. <i>Degenerative, non-inflammatory diseases of the joints and spine</i>	2		2		4	1	1	PC-2, PC-3, PC-11, PC-12, PC-13, PC-14, PC-15, PC-16, PC-19	lecture using video materials	testing
5	Topic 5. Gout. <i>Diagnostic methods, differential diagnosis of microcrystalline arthritis</i>	2		2		4	1	1	PC-2, PC-3, PC-11, PC-12, PC-13, PC-14, PC-15, PC-16, PC-19	lecture using video materials	testing
6	Topic 6: Systemic lupus erythematosus			2		2	1	1	PC-2, PC-3, PC-11, PC-12, PC-13, PC-14, PC-15, PC-16, PC-19	lecture using video materials	testing
7	Topic 7. Systemic scleroderma	2		4		6	1	1	PC-2, PC-3, PC-11, PC-12, PC-13, PC-14, PC-15, PC-16, PC-19	lecture using video materials	testing
8	Topic 8. <i>Dermatomyositis</i>	2		4		6	1	1	PC-2, PC-3, PC-11, PC-12, PC-13, PC-14, PC-	lecture using video materials	testing



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									15, PC-16, PC-19		
9	Topic 9. Ankylosing spondylitis			2		2	1	1	PC-2, PC-3, PC-11, PC- 12, PC-13, PC-14, PC- 15, PC-16, PC-19	lecture using video materials	testing
	Total hours by discipline:	1 4		1 8		32	11	11			

1.4.2. Organization of independent work of students

№	The topic of the student's independent work:	Assignment for the student's independent work	Recommended literature	Delivery dates (week number)
1	The technique of auscultation of heart murmurs.	Abstract, report, presentation	1. Rheumatology: Clinical recommendations. / Edited by E.L. Nasonov– - 2nd ed., corrected. and additional - M.: GEOTAR-Media, 2015. - 752 p.	1
2	Biological agents in the treatment of RA	Abstract, report, presentation	2. Rheumatology. National leadership. / Edited by E.L. Nasonov, V.A. Nasonova. - M.: GEOTAR-Media, 2008. - 720 p.3.	2
3	Etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis of infectious arthritis	Abstract, report, presentation		3



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4	Non-drug methods of treatment of microcrystalline arthritis	Abstract, report, presentation	3. B. Bates «Guide to Physical Examination and History taking» LWW, 11 ed,2012	4
5	The concept of pulse therapy. Complications of pharmacotherapy.	Abstract, report, presentation	4. Anthony S.Fauci, Braunwald, Kasper, Longo, Jameson, Loscalzo Harissons «Principles of Internal Medicine» 2012, 17thEdition	5
6	Clinical forms of systemic scleroderma	Abstract, report, presentation	5. Graham Douglas&FionaNicol Macleod's «Clinical examination» 13th Edition.	6

1.4.3. Control questions for the course:


1. Definition of the concepts "acute rheumatic fever" and "chronic rheumatic heart disease".
2. Etiology, pathogenesis and pathomorphology of rheumatic process.
3. Clinical picture of rheumatic fever.
4. Laboratory and instrumental research methods.
5. Diagnostic criteria (large and small), the degree of activity of acute rheumatic fever.
6. Complications of rheumatic fever.
7. Treatment and prevention of rheumatic fever.
8. Definition of rheumatoid arthritis.
9. Classification of rheumatoid arthritis.
10. Assessment of the severity of arthritis.
11. Clinic, diagnosis and differential diagnosis of seropositive rheumatoid arthritis with complications.
12. Medical treatment of seropositive rheumatoid arthritis with complications.
13. Tactics of patient management in outpatient settings.
14. Tactics of patient management in inpatient conditions. Indications for hospitalization.



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15. Definition of "osteoarthritis". Classification of pain syndrome in osteoarthritis.
16. Differential diagnosis of pain syndrome in osteoarthritis.
17. Clinic and diagnosis of pain syndrome in osteoarthritis.
18. Modern approaches to pathogenetic therapy of primary osteoarthritis, scientific justification.
19. Medical treatment.
20. Classification of gout.
21. Differential diagnosis of gout with other crystallopathies.
22. Clinic and diagnosis of gout.
23. Tactics of management of a patient with acute and chronic gouty arthritis in outpatient and
24. stationary conditions. Medical treatment. Forecast.
25. Systemic lupus erythematosus, definition.
26. Classification of systemic lupus erythematosus.
27. Clinical picture.
28. Diagnostic criteria of systemic lupus erythematosus.
29. Management plan for these patients.
30. Systemic scleroderma, definition.
31. Classification of systemic scleroderma.
32. Clinical picture.
33. Diagnostic criteria of systemic scleroderma.
34. Management plan for these patients.
35. Dermatomyositis, definition. Classification of idiopathic inflammatory myopathy.
36. Clinical picture of idiopathic inflammatory myopathy.
37. Diagnostic criteria of idiopathic inflammatory myopathy.
38. The management plan for these patients.

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39. Methods of clinical examination of a patient with suspected spondyloarthritis, sacroiliitis.
40. Characteristic clinical symptoms and syndromes.
41. Differential diagnosis of the main syndromes.
42. Methods for determining the mobility of the spine and their interpretation.
43. Indices of activity and severity of ankylosing spondylitis.
44. Drug and non-drug treatment of back pain.

1.5. EDUCATIONAL – METHODOLOGICAL AND INFORMATIONAL SUPPORT OF THE DISCIPLINE

List of recommended literature:

1. Rheumatology: Clinical recommendations. / Edited by E.L. Nasonov— - 2nd ed., corrected. and additional - M.: GEOTAR-Media, 2015. - 752 p.
2. Rheumatology. National leadership. / Edited by E.L. Nasonov, V.A. Nasonova. - M.: GEOTAR-Media, 2008. - 720 p.
3. Zlobina T.I. Systemic lupus erythematosus and pregnancy. / Edited by A.N. Kalyagin. - Irkutsk, 2012.
4. Kalyagin A.N. Problems of management of patients with streptococcal infections in general medical practice: Study guide. / Edited by Yu.A. Goryaev. - Irkutsk, 2006. - 34 p.
5. Kalyagin A.N. Management of patients with chronic heart failure in clinical practice: Study guide. / Edited by Yu.A. Goryaev. - Irkutsk, 2010. - 152 p.
6. Kalyagin A.N. Diagnostics and classifications in rheumatology: A textbook for doctors. - Irkutsk, 2012. - 200 p.




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7. Kalyagin A.N., Kazantseva N.Yu. Osteoarthritis: Textbook. / Edited by Yu.A. Goryaev. - Irkutsk, 2008. - 48 p.
8. Stephen J. Mcphee, «Current Medical Diagnosis & Treatment». 2009
9. Elsevier «Clinical Examination.A Systematic Guide To Physical Diagnosis » Australia. 2014
10. Tao Le. «First Aids in Internal Medicine» Boards 2 Edition Copyright 2008
11. Schneider, M-J. Introduction to Public Health 3rd Edition. 2011. Jones & Bartlett Publishers, Sudbury,Mass.
12. ABM Abdullah, MN Alam MRCP, “Long Cases in Clinical Medicine” First Edition: 2013.
13. RAlagappan. Chennai, Tamil Nadu Manual of Practical Medicine” Fourth Edition. India.

The list of resources of the information and telecommunication network "Internet" necessary for the development of the discipline

1. <http://meduniver.com/Medical/Book/34.html>
2. www.jaypeebrothers.com
3. www.booksmed.com
4. www.bankknig.com
5. Blaufuss Multimedia:
<http://www.blaufuss.org>
<http://www.rale.ca/Recordings.htm>

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6. David Arnall: Pulmonary Breath Sounds:

http://faculty.etsu.edu/arnall/www/public_html/heartlung/breathsounds/contents.html

7. Frontiers in Bioscience, Virtual Library: Heart Sounds

http://www.lf2.cuni.cz/Projekty/interna/heart_sounds/h14/sound.htm

8. McGill University: Heart Sounds:

http://www.lf2.cuni.cz/Projekty/interna/heart_sounds/h6/heart_tables.html