FACULTY OF MEDICINE II

STUDY PROGRAM 0912.1 MEDICINE

DEPARTMENT OF RHEUMATOLOGY AND NEPHROLOGY

APPROVED
at the Meeting of the Commission for Quality Assurance and Evaluation of the Curriculum Faculty
Minutes No. 1 of 16.09.21

Chairman professor, doctor, PhD
Suman Serghei _____

APPROVED
at the Council meeting of the Faculty Medicine 2
Minutes No. 1 of 24.09.21

Dean of Faculty, professor, doctor, PhD
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APPROVED
approved at the Meeting of the Chair Rheumatology and Nephorology
Minutes No. 2 of 14 september

Head of chair, professor, doctor, PhD
Liliana GROPPA _____

SYLLABUS

SPECIAL ISSUES OF DIFFERENTIAL DIAGNOSIS IN RHEUMATOLOGY

Integrated studies

Type of course: Optional discipline

Curriculum developed by the team of authors:

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I. INTRODUCTION

- **General presentation of the discipline: place and role of the discipline in the formation of the specific competences of the professional / specialty training program**

Special issues of differential diagnosis in rheumatology are the appropriate ground for integration and implementation of additional knowledge (diagnostic criteria, novel diagnostic and treatment methods) in clinical practice. Throughout this discipline, along with the study of etiology, pathogenesis, clinical picture, evolution, treatment and prophylaxis of rheumatic disease, the future specialist gains practical skills of patient investigation and assessment of the obtained results.

- **Mission of the curriculum (aim) in professional training**

Special issues of differential diagnosis in rheumatology aim at gaining knowledge and development of necessary skills for diagnosis, treatment and social reinsertion of patients with rheumatic diseases.

- **Language of the course:** english;
- **Beneficiaries:** students of the 4th year, Faculty of Medicine II

II. MANAGEMENT OF THE DISCIPLINE

Code of discipline		**S.08.A.079**	
Name of the discipline		**Special issues of differential diagnosis in rheumatology**	
In charge of the discipline		**Head of chair, professor, doctor, PhD Liliana GROPPA**	
Year	IV	Semester	VIII

Total hours			Nr. ore pe tipuri de activităţi				Type of assesment	No. ECTS credits
Total	**Direct contact**	**Selftraining**	**Clinical training**	**Course**	**Practice, laboratory work**	**Seminar**		
30	**20**	**10**	**-**	**10**	**10**		**E**	**1**

III. TRAINING AIMS WITHIN THE DISCIPLINE

At the end of the discipline study, the student will be able to:

- *at the level of knowledge and understanding:*

1. To know the basics of pathology, physiopathology, pharmacology, semiology;
2. To know and adequately use the specific terms for special issues of differential diagnosis in rheumatology;

3. To know the biological laws to a level, necessary for the study of the issue of human disease, as well as for the facilitation of correlation between pathological and clinical aspects.

- *at the application level:*

1. Theoretical knowledge: knowledge of clinical and therapeutic aspects of diseases of musculoskeletal disease;
2. Practical skills:

- Clinical assessment of the patient with rheumatic disease (Appendix nr.1 Practical Skills)
- practical aspects of interpreting imaging studies of the musculoskeletal system, assessment of acute phase reactants, the study of immune markers, tender joint count, swollen joint count, DAS28 Index, study of synovial fluid, computed tomography and MRI of the musculoskeletal system, ultrasound examination of the musculoskeletal system, skeletal scintigraphy, bone densitometry.;

- *at the integration level:*

1. To assess the importance of special issues of differential diagnosis in rheumatology in the context of medicine;
2. To creatively address the topics of clinical medicine;
3. To deduce relationships between rheumatology and other clinical specialties;
4. To master skills of implementing and integrating clinical knowledge;
5. To be able to assess and auto-assess objectively the current knowledge;
6. To be able to assimilate gained achievements in clinical disciplines.

IV. PROVISIONAL TERMS AND CONDITIONS

Special issues of differential diagnosis in rheumatology are the appropriate setting for integration and implementation of fundamental branches of medicine (anatomy, human physiology, microbio ogy, pathophysiology, etc.) in clinical medicine. Together with the study of etiology, pathogenesis, clinical picture, evolution treatment and prophylaxis of rheumatic disease, the future specialist gains practical skills in investigating the patient assessing the obtained results.

A separate role is given to rheumatology in establishing the basics of clinical rationalizing, which will ensure a correct diagnosis, adequate treatment and solving emergencies in rheumatic diseases.

V. THEMES AND ESTIMATE ALLOCATION OF HOURS

Lectures and self-training:

No. d/o	THEME	Number of hours		
		Lectures	Seminars	Self-training
1.	DIFFERENTIAL DIAGNOSIS IN DIFFUSE DISEASES OF THE CONNECTIVE TISSUE. (PART I)	2	2	2
2.	DIFFERENTIAL DIAGNOSIS IN DIFFUSE DISEASES OF THE CONNECTIVE TISSUE. (PART II)	2	2	2
3.	DIFFERENTIAL DIAGNOSIS IN THE ARTICULAR SYNDROME IN ACUTE RHEUMATIC FEVER.	2	2	2

No. d/o	THEME	Number of hours		
		Lectures	Seminars	Self-training
4.	DIFFERENTIAL DIAGNOSIS IN ANCA POSITIVE VASCULITIS.	2	2	2
5.	DIFFERENTIAL DIAGNOSIS IN NODULAR PERIARTHRITIS.	2	2	2
Total		**10**	**10**	**10**

VI. CLINICAL SKILLS

- Taking the history of the patient with rheumatic diseases.
- Physical examination of the musculoskeletal system.
- Physical examination of the vertebral column.
- Interpretation of laboratory results (immunological tests).
- Interpretation of imaging tests (Xray, DXA, etc.)

VII. REFERENCE OBJECTIVES OF CONTENT UNITS

Objectives	Content units
Theme (chapter) 1. DIFFERENTIAL DIAGNOSIS IN DIFFUSE DISEASES OF THE CONNECTIVE TISSUE.	
• To define the classification of diffuse diseases of the connective tissue. • To know the diagnostic criteria of diffuse diseases of the connective tissue. • To demonstrate the role of etiological factors in the development of diffuse diseases of the connective tissue. • To possess the knowledge related to treatment in diffuse diseases of the connective tissue.	1. Definition 2. Epidemiology 3. Etiopathogenesis 4. Diagnostic criteria 5. Clinical manifestations 6. Laboratory and instrumental investigations 7. Management strategy 8. Evolution 9. Treatment 10. Prognosis
Theme (chapter) 2. DIFFERENTIAL DIAGNOSIS IN DIFFUSE DISEASES OF THE CONNECTIVE TISSUE.	
• To define acute rheumatic fever • To know the diagnostic criteria for acute rheumatic fever	1. Definition 2. Epidemiology 3. Etiopathogenesis

Objectives	Content units
• To demonstrate the role of etiological factors in the development of acute rheumatic fever • To possess the knowledge related to treatment in acute rheumatic fever	4. Diagnostic criteria
	5. Clinical manifestations
	6. Laboratory and instrumental investigations
	7. Management strategy
	8. Evolution
	9. Treatment
	10. Prognosis
Theme (chapter) 3. DIFFERENTIAL DIAGNOSIS IN THE ARTICULAR SYNDROME IN ACUTE RHEUMATIC FEVER.	
• To define acute rheumatic fever • To know the diagnostic criteria for acute rheumatic fever • To demonstrate the role of etiological factors in the development of acute rheumatic fever • To possess the knowledge related to treatment in acute rheumatic fever	1. Definition
	2. Epidemiology
	3. Etiopathogenesis
	4. Diagnostic criteria
	5. Clinical manifestations
	6. Laboratory and instrumental investigations
	7. Management strategy
	8. Evolution
	9. Treatment
	10. Prophylaxis
Theme (chapter) 4. DIFFERENTIAL DIAGNOSIS IN ANCA POSITIVE VASCULITIS.	
• To define vascular disease. • To know the classification of vasculitides based on caliber of predominantly involved vessels. • To know the diagnostic criteria for various types of ANCA positive vasculitis. • To demonstrate the role of etiological factors in the development of ANCA positive vasculitis. • To possess the knowledge related to treatment in ANCA positive vasculitis.	1. Definition
	2. Epidemiology
	3. Etiopathogenesis
	4. Diagnostic criteria
	5. Clinical manifestations
	6. Laboratory and instrumental investigations
	7. Management strategy
	8. Evolution
	9. Treatment
	10. Prophylaxis
Theme (chapter) 5. DIFFERENTIAL DIAGNOSIS IN NODULAR PERIARTHRITIS.	
• To define of nodular periarthritis. • To know the diagnostic criteria for nodular periarthritis. • To demonstrate the role of etiological factors in the development of nodular periarthritis. • To possess the knowledge related to treatment in nodular	1. Definition
	2. Epidemiology
	3. Etiopathogenesis
	4. Diagnostic criteria

Objectives	Content units
periarthritis.	5. Clinical manifestations
	6. Laboratory and instrumental investigations
	7. Management strategy
	8. Evolution
	9. Treatment
	10. Prognosis

VIII. PROFESSIONAL (SPECIFIC (PC)) AND TRANSVERSAL (TC) COMPETENCES AND STUDY OUTCOMES

- **Professional (specific) (PC) competences**
  - PC1. - Responsible execution of professional tasks with the application of the values and norms of professional ethics, as well as the provisions of the legislation in force
  - PC2. - Adequate knowledge of the sciences about the structure of the body, physiological functions and behavior of the human body in various physiological and pathological conditions, as well as the relationships between health, physical and social environment
  - PC3. - Resolving clinical situations by developing a plan for diagnosis, treatment and rehabilitation in various pathological situations and selecting appropriate therapeutic procedures for them, including providing emergency medical care
  - PC4. - Promoting a healthy lifestyle, applying prevention and self-care measures
  - PC5. - Interdisciplinary integration of the doctor's activity in a team with efficient use of all resources
  - PC6. - Carrying out scientific research in the field of health and other branches of science
- **Transversal competences (TC)**
  - TC1. - Autonomy and responsibility
- **Study outcomes**

Student education in a spirit of strictness of the medical act and understanding the dominant role of fundamental sciences for the given level, as well as their professional development. Gain of practical skills related to the correct execution of certain functional investigations, based on understanding not only the procedures, but the explored phenomena as well, together with the implied technical specifics. Theoretical knowledge and practical skills necessary to assimilate information and diagnose rheumatic diseases.

Note. Study outcomes are deduced from the professional competencies and formative valences of the informational content of the discipline.

IX. STUDENT'S SELF-TRAINING

No.	Expected product	Implementation strategies	Assessment criteria	Implementation terms
1.	Patient rounds	Examination of the patient and establishment of a presumptive diagnosis, further recommendations	The ability to form conclusions, quality of medical reports.	During the course

		for complex investigation and treatment recommendations.		
2.	Presentations, posters and reports	Selecting the research topic, development of the plan and implementation term. Establishing the components for the Power Point presentation, poster or report – topic, objective, results, conclusions, practical importance, and references.	The degree on project insight, degree of scientific evidence, quality of conclusions, creativity elements, development of personal attitude, coherence of presented information and scientific accuracy, graphical representation and type of presentation.	End of course
3.	Applying various learning techniques		Volume of work, degree of insight into the essence of various subjects, level of scientific evidence, quality of conclusions, creativity elements, proof of issue understanding, development of personal attitude.	During the course

X. METHODOLOGICAL SUGGESTIONS FOR TEACHING-LEARNING-ASSESSMENT

- *Teaching and learning methods used*

Special issues of differential diagnosis in rheumatology is an optional course and is thought according to classical university standards: courses, practical seminar. Course holders hold the theoretical course.

The discipline reserves the right to hold the practical seminars and courses in an interactive manner.

The algorithm of a practical lesson in special issues of differential diagnosis in rheumatology – 2 academic hours (90 min):

a. Answers (teacher) to topic related questions – 10 min.
b. Topic discussion using didactic and illustrative materials – 10 min.
c. Discussion of situation based clinical cases with laboratory and instrumental investigations – 60 min
d. Assessment of gained knowledge/skills, conclusions – 10 min.

- *Applied teaching strategies / technologies (specific to the discipline)*

Try to understand the key-definitions, explained by the teacher, without relying on methods of assessment, learn not towards the goal of passing the tests and be admitted for the exam, but for gaining useful knowledge for other disciplines.

The course is destined to provide for the students' needs of formation and professional development in the field of rheumatology. Ask the teacher, that each provided information is backed

up by examples, applications, theoretical and practical problems, thus ensuring an active way of learning.

Use various methods of engaging in active reading and resources, which challenge critical thinking towards the goal of solving situation based problems, which contribute to the students' systematization capacity.

„Try to be a teacher", explain to your colleagues the key points of the studied topic, give your own examples, explain difficult moments, listen to their opinions. The ability to explain the studied material to your colleagues will develop your ability to think and express yourself.

Presentation of the clinical cases – teaching method based on the analysis of a clinical scenario of a virtual or real patient, role based interaction "patient – student – teacher", which will allow connecting theoretical knowledge with practical skills, thus serving as a platform for clinical teaching.

- ***Methods of assessment (including the method of final mark calculation)***

Current

During each practical lesson, the student's skills at the patient's bedside and topic-related report are assessed without a mark.

Final

The exam on the discipline is multiple-choice tests (variant "Test Editor" PI SMPU "Nicolae Testemițanu"). The multiple-choice test is comprised of 50 questions per test on all the discussed topics on **Special issues of differential diagnosis in rheumatology**, of which 20 questions are with one correct answer, and the other 30 are with multiple correct answers. The student has overall 1 hour to answer the questions. The test is assessed with marks from 0 to 10. Absence for the final assessment without any serious ground is equivalent to "0" (zero). The student has the right to retake the final failed assessment two times consecutively. The final assessment is an differentiated colloquy.

Assessment is marked with grades from 10 to 1, without decimals:

- Mark 10 or "excellent" (ECTS equivalent - A) will be rated for possessing 91-100% of material;
- Mark 9 or "very good" (ECTS equivalent - B) will be rated for possessing 81-90% of material
- Mark 8 or "good" (ECTS equivalent - C) will be rated for possessing 71-80% of material;
- Marks 6 and 7 or "satisfactory" (ECTS equivalent - D) will be rated for possessing 61-65% and 66 – 70% of material respectively;
- Mark 5 or "poor" (ECTS equivalent - E) will be rated for possessing 51-60% of material;
- Marks 3 and 4 (ECTS equivalent - FX) will be rated for possessing 31-40% and 41 – 50% of material respectively;
- Marks 1 and 2 or "unsatisfactory (ECTS equivalent - F) will be rated for possessing 0-30% of material.

Method of mark rounding at different assessment stages

Intermediate marks scale (annual average, marks from the examination stages)	National Assessment System	ECTS Equivalent
1,00-3,00	**2**	**F**
3,01-4,99	**4**	**FX**
5,00	**5**	**E**
5,01-5,50	**5,5**	
5,51-6,0	**6**	
6,01-6,50	**6,5**	**D**
6,51-7,00	**7**	

7,01-7,50	7,5	C
7,51-8,00	8	
8,01-8,50	8,5	B
8,51-8,00	9	
9,01-9,50	9,5	A
9,51-10,0	10	

Absence on examination without good reason is recorded as "absent" and is equivalent to 0 (zero). The student has the right to have two re-examinations.

XI. RECOMMENDED LITERATURE:

A. Compulsory:

1. Kelley's textbook of rheumatology, 2013.
2. Harrison's rheumatology, 2013.
3. Handbook of rheumatology, Vlad, Adrian, 2016.
4. Harrison's Principle of Internal Medicine,18th Ed. (Access Medicine).

B. Additional:

1. Oxford handbook of rheumatology, Hakim, Alan J. 2006
2. Principles of internal medicine (cardiology, rheumatology, and nephrology) Study guide for 5th course students, 2016.