

SYLLABUS

Subject:	<i>Microbiology 2</i>	<i>Thursday 15.00-16.30</i>	P1
Study Program:	<i>GM</i>	Study Period:	<i>WS</i>
Evaluation:	<i>Examination</i>	Subject Type:	
Content:	<i>2/3</i>		<i>Total 28/42</i>

Department of Medical and Clinical Microbiology

<i>Week</i>	<i>Lectures</i>	<i>Practical Lessons</i>
1. 19.9.	Enterobacteria (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Dr. Čurová	Laboratory diagnosis of staphylococci (specimens, - smears, - cultivation, - methods for identification (catalase test, coagulase test, - serologic and typing tests, - sensitivity to antibiotics (AB))
2. 26.9.	Mycobacteria and Corynebacteria (- classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof. Siegfried	Laboratory diagnosis of streptococci, enterococci and pneumococci - Test 1 (specimens, - smears, - cultivation, - methods for identification (catalase test, optochin test), - serologic and typing tests, - sensitivity to AB)
3. 3.10.	Anaerobic bacteria (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof. Siegfried	Lab. diagnosis of enterobacteria - Test 2 (specimens, - bacteriological methods for isolation of enterobacteria (enrichment cultures, selective medium cultures, differential medium cultures, final identification), - serologic methods (rapid slide agglutination test, tube dilution agglutination test-Widal test), - demonstration of sensitivity to AB)
4. 10.10.	Medical mycology (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Dr. Hrabovský	Laboratory diagnosis of corynebacteria and mycobacteria - Test 3 (collection, transport and processing of specimens, - smears (Ziehl-Neelsen staining method for mycobacteria, Neisser staining method for corynebacteria, - culture, identification of acid-fast organisms in sputum specimen, demonstration of sensitivity of bacteria to AB)
5. 17.10.	Medical parasitology (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Dr. Sabol	Laboratory diagnosis of sporulating aerobe and anaerobe bacteria - Test 4 (collection, transport and processing of specimens, - direct examination and interpretation of smears, -methods for inoculation and isolation, - anaerobic culture media, - demonstration of sensitivity of bacteria to AB)
6. 24.10.	Viruses – introduction. DNA viruses (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof. Siegfried	Laboratory diagnosis of infections caused by fungi - Test 5 (collection, transport and processing of specimens, - smears, -methods for isolation and identification (auxanogram and zymogram), serologic methods,- demonstration of sensitivity of fungi to antimycotics)
7. 31.10.	Hepatitis viruses (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof. Siegfried	Laboratory diagnosis of infections caused by parasites - Test 6 (collection, transport and processing of specimens, - direct examination and interpretation of smears, - methods for isolation and identification, - serologic tests)

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8. 7.11.	RNA viruses (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Dr. Čurová	Laboratory diagnosis of infections caused by viruses - Test 7 (collection, transport and processing of specimens, - methods for cultivation of viruses, - detection of viruses, - serology tests)
9. 14.11.	Infectious agents causing sexually-transmitted and urinary tract infections (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof. Siegfried	Seminar - Test 8 Review of medically important viruses Presentation of seminar work prepared by students based on self directed study.
10. 21.11.	Infections agents causing respiratory infections (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof. Siegfried	Laboratory diagnosis of sexually transmitted and urinary tract infections - Test 9 collection, transport and processing of specimens, - direct examination and interpretation of smears, -methods for isolation and identification, - serologic tests, - demonstration of sensitivity of bacteria to antibiotics
11. 28.11.	Infectious agents causing gastrointestinal infections (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof. Siegfried	Laboratory diagnosis of respiratory infections - Test 10 collection, transport and processing of specimens, - direct examination and interpretation of smears, -methods for isolation and identification, - serologic tests, - demonstration of sensitivity of microbes to antibiotics
12. 5.12.	Credit test Infectious agents causing meningitis and sepsis (-classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof. Siegfried	Laboratory diagnosis of gastrointestinal diseases collection, transport and processing of specimens, - direct examination and interpretation of smears, -methods for isolation and identification, - serologic tests, - demonstration of sensitivity of microbes to antibiotics
13. 12.12.	Retake the credit test Nosocomial infections (-classification, -description of agents, - pathogenicity, -clinical infections, -diagnostic laboratory test, -treatment, -prevention and control) Prof. Siegfried	Laboratory diagnosis of infectious agents causing meningitis and sepsis (collection, transport and processing of specimens, - direct examination and interpretation of smears, -methods for isolation and identification, - serologic tests, - demonstration of sensitivity of microbes to antibiotics)
14. 19.12.	Topic on request of students Prof. Siegfried	Credit week. Compensation of practical lessons.

Conditions to be fulfilled for getting the credit

1. 60 % of total points a student may obtain in the credit test.
2. 60 % of total 100 points obtainable in 10 short tests composing of 10 questions (1question = 1 point) in practical exercises starting from the 2nd up to the 11th week of winter term.
3. Presentation of Seminar Work in practical exercise.
4. Active participation in practical exercises (demonstrating knowledge related to topic of given practical exercise).

Dr.h.c. prof. MUDr. Leonard Siegfried, CSc.
Head of the Institute

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