

SYLLABUS

Subject:	<i>Microbiology 2</i>	<i>Tuesday 12.30-14.00</i>	P3
Study Programme:	<i>Dental Medicine</i>	Study Period:	<i>WS</i>
Evaluation:	<i>examination</i>	Subject Type:	
Content:	<i>2/2 E</i>		<i>Total 28/28</i>

Department:

<i>Week</i>	<i>Lectures</i>	<i>Practical Lessons</i>
1. 17.9.	Gramnegative bacteria of relevance to dentistry (classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof.Siegfried	Laboratory diagnosis of staphylococci (collection, transport and processing the specimens, - smears, - cultivation, - methods for identification: catalase test, coagulase test, - serology and typing tests, - sensitivity to antibacterial drugs – AB)
2. 24.9.	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 (collection, transport and processing the specimens, - smears, - cultivation, - methods for identification: catalase test, optochin test, - serology and typing tests, - sensitivity to AB)
3. 1.10.	Anaerobic bacteria (classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof.Siegfried	Lab. diagnosis of enterobacteria - Test 2 (collection, transport and processing the specimens, - bacteriological methods for isolation of enterobacteria (enrichment cultures, selective medium cultures, differential medium cultures, final identification), - serology methods: rapid slide agglutination test, tube dilution agglutination test-Widal test, - demonstration the sensitivity of bacteria to AB)
4. 8.10.	Fungi of relevance to dentistry (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 the specimens, - smears (Ziehl-Neelsen staining method for mycobacteria, Neisser staining method for corynebacteria, - culture, identification of acid-fast organisms in sputum specimen, demonstration the sensitivity of bacteria to AB)
5. 15.10.	Medical parasitology (classification,-description of agents, - pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Dr.Sabol	Laboratory diagnosis of sporulating aerobic and anaerobic bacteria - Test 4 (collection, transport and processing the specimens, - direct examination and interpretation of smears, -methods for inoculation and isolation, - anaerobic culture media, - demonstration of sensitivity of bacteria to AB)
6. 22.10.	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)

SYLLABUS

7. 29.10.	<p>RNA viruses (classification,-description of agents, -pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Dr.Čurová</p>	<p>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, - serology)</p>
8. 5.11.	<p>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</p>	<p>Laboratory diagnosis of infections caused by viruses - Test 7 (collection, transport and processing of specimens, - methods for cultivation of viruses, - detection of viruses, - serology)</p>
9. 12.11.	<p>Infections agents causing respiratory infections (classification,-description of agents, -pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof.Siegfried</p>	<p>Seminar - Test 8 Review of medically important viruses. Presentation of written work prepared by students based on self directed study.</p>
10. 19.11.	<p>Infectious agents causing cardiovascular and central nervous system infections (classification,-description of agents, -pathogenicity, -clinical infections, diagnostic laboratory tests, -treatment, -prevention and control) Prof. Siegfried</p>	<p>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 AB)</p>
11. 26.11.	<p>Microbiology of dental plaque and dental carries (causative agents of dental plaque, etiology of caries, invasion of dentin and pulp by bacteria, prevention of dental caries) Dr. Sabol</p>	<p>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 AB)</p>
12. 3.12.	<p>Infectious agents causing periodontal diseases Credit test (classification and etiology, pathogenicity, clinical syndromes, diagnostic laboratory tests, -treatment, -prevention and control) Dr. Sabol</p>	<p>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 AB)</p>
13. 10.12.	<p>Extra-oral infections caused by oral bacteria (dentogenic abscess, actinomycosis, infectious endocarditis, bacteremia) Retake the credit test Dr. Sabol</p>	<p>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 AB)</p>
14. 17.12.	<p>A topic requested by students. Prof. Siegfried</p>	<p>Credit week. Compensation of practical exercises.</p>

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 points a student may obtain in 10 short tests (each test composes of 10 questions, 1 question = 1 point) in practical exercises starting from the 2nd up to the 11th week of winter term.
3. Presentation of Seminar Work in practical lesson.
4. Active participation in practical lessons (demonstration of knowledge related to topics that will be the content of given practical lesson).

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

SYLLABUS
