




Accepted, Departmental Council
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PRACTICAL EXERCISES IN MEDICAL MICROBIOLOGY

English-speaking Dental medicine students 1st TERM - 2016/2017

1. Medical Laboratory – Organisation, Equipment, Rules for Work. Detection of Microbial Morphology. Microscopes. Types of Microscopes. Immersion Oil Microscopic System. Simple Methods for Staining of Bacteria – Loffler's staining.
2. Differential Staining Methods. Gram, Neisser and Ziehl-Neelsen.
3. **Test №1 (Taxonomy, Morphology and Structure of Bacteria).** Disinfection and Sterilization.
4. Bacterial Growth. Nutrient Media. Isolation of Pure Culture. Biochemical Activity of Bacteria.
5. Detection of Bacterial Pathogenic Factors. In vitro Susceptibility Tests for Detection of Bacterial Resistance to Antimicrobial Agents.
6. **Seminar (Morphology, Physiology and Genetics of Microbes). Test №2**
7. Cellular and Humoral Factors of Innate and Adopted Immunity. Normal Microbial Flora of the oral cavity and its role.
8. Basic Immunology. Antigens and Antibodies and Their Interactions. Agglutination, Precipitation, Neutralisation (Anti-Streptolysin O – ASO Test) and CFT (Complement Fixation Test).
9. Immunological Reactions with the Use of Labels – IFA, ELISA, RIA. Molecular Biological Methods in Microbiology – DNA probes, PCR.
10. Hypersensitivity Reactions. Bioproducts – Vaccines and Sera.
11. **Test №3 (Infection and Immunity).** Microbiological Techniques for Diagnosis of Infection. General Principles of Collection and Transport of the Specimens. Specimens Quality.
12. Microbiological Examination of Pus. Microbiological Diagnosis of Staphylococcal and Streptococcal Infections.
13. Laboratory Diagnosis of Respiratory Tract Infections (1). Microbiological Diagnosis of Tuberculosis and Pneumococcal Infections.
14. Laboratory Diagnosis of Respiratory Tract Infections (2). Microbiological Diagnosis of Diphtheria and Whooping Cough and Haemophilus influenzae Infections.
15. Term Recapitulation and Recognition of the Practical classes knowledge.

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