

Approved by Dept. Council
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PRACTICAL EXERCISES IN MEDICAL MICROBIOLOGY

English-speaking students in Pharmacy 2nd TERM - 2026/2027

1. Microbiological examination of Pus. Microbiological diagnosis of staphylococcal and streptococcal infections.
2. Microbiological diagnosis of lower respiratory tract infections – Tuberculosis, Leprosy and *S. pneumoniae* infections
3. Microbiological diagnosis of upper respiratory tract infections - Diphtheria and Whooping cough. Throat culture procedures.
4. Microbiological diagnosis of Gas gangrene and Tetanus. Isolation and identification of bacteria from infected wounds and abscesses.
5. Microbiological diagnosis of bacterial meningitis (*Neisseria meningitidis* and *Haemophilus influenzae*). Microbiological diagnosis of CSF and primary sterile specimens.
6. Microbiological diagnosis of particularly dangerous infectious diseases – Anthrax, Cholera and Plague.
7. **Seminar (Exercises №1 – 6, TEST №1)**
8. Microbiological diagnosis of bacterial Shigellosis, Salmonellosis, and *E. coli* enteritis. Microbiological examination of faeces. Microbiological diagnosis of food poisoning (*S. aureus*, *Salmonella enterica*, *Clostridium botulinum*, *Clostridium perfringens*). Detection of *Helicobacter pylori*.
9. Microbiological diagnosis of Bacteriuria. Enumeration and identification of microorganisms in urinary tract infections: traditional (*E. coli*, *Klebsiella spp.*, *Proteus-Providencia-Morganella spp.*, *Pseudomonas spp.*) and emerging (Streptococci, *Salmonella enterica*, *Leptospira spp.*, *Mycobacterium tuberculosis*).
10. Microbiological diagnosis of Gonorrhoea, Syphilis, *C. albicans*, *Chlamydia spp.* and *Mycoplasma spp.* Microbiological examination of the genital tract.
11. Microbiological diagnosis of Typhoid fever, Undulant fever, Typhus fever and Relapsing fever. Microbiological examination of blood culture.
12. Hospital acquired infections – *Pseudomonas spp.*, *Enterococcus spp.*, MRSA, *C. difficile*. Invasive mycoses caused by *Candida spp.*, *Aspergillus spp.*, *Actinomyces spp.* and *Cryptococcus spp.* Antifungal therapy.
13. Microbiological examination of viruses – HIV and Hepatitis A, B, C, D and E.
14. Microbiological examination of specimens of sanitary importance. Sanitary indicative microorganisms. **TEST №2 (Exercises №8-13).**
15. **Practice skills revision from summer and winter terms with mark.**

Approved by: Assoc. Prof. M. Petrov, MD, PhD
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immunology „Prof. Dr. Elissay Yanev“