**WEEK 1 (27- 30 November 2023)**

**TL - Theoretical lesson, S – Seminar, PW - Practical work**

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| **Monday (27.11.2023.)** | **Wednesday (29.11.2023.)** | **Thursday (30.11.2023.)** |
| 16,30-17,15**TL** *Major antibiotic classes and basic mechanisms of bacterial resistance to antibiotics: the origins, genetic basis and dissemination of antimicrobial resistance (AMR)*Full Prof Nataša Opavski | 16,30-17,15**S** *Antimicrobial susceptibility testing (AST): advantages and limitations of the commonly used techniques in clinical microbiology laboratory (the choice of method depending on the bacterial species, site of infection, age of the patient, etc.)*Asst Prof Irena Aranđelović | 16,30-18,00**PW** *Interpretation of AST results - examples and cases*Asst Prof Dušan Kekić  |
| 17,15-18,00**TL** *Epidemiology of AMR; Intrinsic resistance to antibiotics; implications of patterns of resistance in clinical microbiology (importance of accurate identification of bacteria and understanding the rules of the intrinsic resistance)*Full Prof Vera Mijač | 17,15-18,00**S** *Basic concepts of interpretation of the AST results according to the available standards: European Committee for Antimicrobial Susceptibility Testing (EUCAST) and Clinical and Laboratory Standards Institute (CLSI) guidelines; interpretation of laboratory findings*Full Prof Vera Mijač |
| 18,00-18,45**TL** *Overview of the bacteria with critical, high, and medium antibiotic resistance; global surveillance of antimicrobial resistance by WHO and other organizations*Full Prof Vera Mijač | 18,00-19,30 **PW** *Conventional AST methods* Asst Miloš Jovićević | 18,00-19,30 **PW** *Application of molecular methods for AST* Asst Miloš Jovićević |

**WEEK 2 (4 - 7 December 2023)**

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| **Monday (4.12.2023.)** | **Wednesday (6.12.2023.)** | **Thursday (7.12.2023)** |
| 16,30-17,15**TL** *Resistance to antibiotics in Gram-negative bacteria that commonly cause health-care associated infections (enterobacteria)*Full Prof Dragana Vuković  | 16,30-17,15**TL** *Resistance to antibiotics in Gram-positive bacteria*Full Prof Nataša Opavski | 16,30-17,15**TL** *Antimicrobial resistance in Mycobacterium tuberculosis (mechanisms of resistance; multidrug- resistant tuberculosis-MDR-TB; extensively drug resistant TB- XDR TB)* Asst Prof Irena Aranđelović |
| 17,15-18,00**S** *Resistance to carbapenems and colistin in Klebsiella pneumoniae, resistance in Pseudomonas aeruginosa, Burkholderia cepacia and E. coli - clinical cases*Full Prof Dragana Vuković | 17,15-18,00**TL**  *Resistance to antibiotics in Gram-negative bacteria that commonly cause health-care associated infections (Gram-negative non-fermentative bacilli)* Asst Prof Ina Gajić  | 17,15-18,00**S** *Drug susceptibility testing of Mycobacterium tuberculosis and* *nontuberculous mycobacteria (NTM)* Asst Prof Irena Aranđelović |
| 18,00-18,45 **S** *Resistance to antibiotics in Clostridioides difficile, problems with diagnostics and available therapeutic options; clinical cases* Full Prof Dragana Vuković | 18,00-18,45 **S** *Acinetobacter baumannii - the problem of resistance in the hospital environment - clinical cases*Asst Prof Ina Gajić | 18,00-18,45 **S** *Resistance in Staphylococcus aureus (methicillin-resistant S. aureus - MRSA, etc.) and Enterococcus spp. (vancomycin resistant enterococcus - VRE) - clinical cases*Asst Prof Dušan Kekić |
| 18,00-19,30 **S** *Resistance of bacteria causing community acquired urinary tract infections - clinical cases*Asst Prof Ina Gajić | 18,00-19,30 **S** *Resistance of Neisseria gonorrhoae to third-generation cephalosporins, macrolides and other antibiotics, cases of gonorrhea therapy failure - clinical cases* Asst Prof Dušan Kekić |

**WEEK 3 (11 - 13 December 2023)**

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| **Monday (11.12.2023.)** | **Wednesday (13.12.2023.)** |
| 16,30-17,15**S** *Resistance of bacterial respiratory pathogens (Streptococcus pneumoniae, Haemophilus influenzae, Moraxella catharralis)*Full Prof Nataša Vučković Opavski | 16,30-17,15**TL** *Importance of pharmacodynamic (PD) and pharmacokinetic (PK) parameters in antibiotic dosing regimen for treatment of infections caused by resistant bacteria (individualized therapy approach)*Full Prof Zoran Todorović |
| 17,15-18,00**TL** *Resistance to antibiotics in bacteria that cause commonly community-acquired infections (Neisseria gonorrhoeae, Helicobacter pylori, Campylobacter etc.)* Full Prof Slobodanka Đukić | 17,15-18,00**S** *Examples of MIC-based dose adjustment for specific bacterial isolate (individualized approach to the patient’s treatment)*Full Prof Zoran Todorović |
| 18,00-18,45 **S** *Problem of resistance in zoonotic pathogens (Salmonella spp., Campylobacter spp. etc.) and Helicobacter pylori – clinical cases* Full Prof Slobodanka Đukić | 18,00-18,45 **TL** *Treatment options for multidrug-resistant bacterial infections in clinical practice*Full Prof Goran Stevanović |
| 18,45-19,30**S** *Bacterial vaginosis treatment; Mycoplasma genitalium and Chlamydia trachomatis infections: current treatment options and resistance issues* Full Prof Slobodanka Đukić | 18,45-19,30**S** *Treatment options for multidrug-resistant bacterial infections in clinical practice – clinical cases*Full Prof Goran Stevanović |