

UNIVERSITY OF BELGRADE
FACULTY OF MEDICINE
PhD STUDIES

MODUL NAME: NEPHROLOGY

CONTENTS OF THE STUDY PROGRAM

Within this study program, students acquire theoretical and practical knowledge related to current problems in clinical nephrology and research principles: pathogenesis, pathomorphological, radiological, immunological and genetic aspects of acute and chronic conditions including glomerulonephritis, tubulointerstitial nephropathy, vascular diseases of the kidneys, hypertensive and diabetic nephropathy and geriatric nephrology. Familiarization with investigations of disorders of water metabolism, electrolyte, acid-base status, mineral metabolism and kidney calculus, disorders in acute and chronic kidney damage, as well as research in methods for replacement of kidney function. Participants acquire general knowledge related to scientific research work in the areas of: methodology of scientific research work, statistics in biomedical sciences, familiarization with clinical research methods, training to find current and feasible programs, familiarization with literature that treats problems in the field of clinical nephrology, and after all that, they get acquainted with the way of writing essays and presentation of work, publishing, but also with research ethics. As it is a very broad field, the study program also contains 8 optional subjects.

Students are first introduced to the diagnosis of kidney diseases: from biochemical and immunological analyzes through biomarkers in the diagnosis of kidney diseases, and urine tests and examination of the expression of markers of immune damage in urine sediment cells. Examining the value of visualization methods in nephrology is of particular importance in the differential diagnosis of kidney diseases. These diagnostic methods will be applied within the framework of tubulointerstitial diseases, hereditary kidney diseases, glomerular and vascular kidney diseases, as well as acute and chronic kidney damage. They are important for establishing an accurate diagnosis, as well as for timely and adequate therapy. In addition, in the case of acute and chronic kidney damage, the methods for replacing kidney function will be discussed: both hemodialysis and peritoneal dialysis, as well as kidney transplantation (from the preparation of the recipient, the preparation of the donor, through the transplant itself and monitoring the patient after it, and immunosuppressive therapy that is applied).

REGISTRATION REQUIREMENTS

Special: persons with completed integrated academic studies in medical sciences lasting 6 years (360 ECTS), who have shown the sense for scientific research work in the relevant field as evidenced by publications in which the candidate is an author (one original paper in a journal cited in Medline database in which the candidate is the author)

General: average grade from the previous level of study that is at least 8.00 (eight), knowledge of the English language to the level of ability to communicate and follow scientific literature, appropriate computer skills and desirable recommendations related to the pursuit of scientific research work, i.e. evaluating the results of the candidate's scientific research work.

COMPOSITION OF THE ADVISORY BOARD

Prof.dr Dijana Jovanovic, Prof. dr Milan Radovic, Prof. dr Mirjana Kostic, Doc. dr Mirjana Lausevic

LIST OF COMPULSORY SUBJECTS

Methodology of scientific research work,
Research ethics,
Informatics,
Statistics for researchers in the field of biomedical sciences (basic course),
Clinical nephrology: research problems and methods

LIST OF ELECTIVE SUBJECTS

1. Acute kidney damage
2. Chronic kidney failure
3. Glomerular diseases
4. Tubulointerstitial diseases of the kidneys
5. Hereditary diseases of the kidneys and urinary channels
6. Vascular diseases of the kidneys
7. Non-invasive and invasive diagnostics of kidney diseases
8. Extracorporeal depuration and kidney transplantation