



## Fundamentals of Clinical Pharmacology

**Title:** Fundamentals of Clinical Pharmacology

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The textbook *Fundamentals of Clinical Pharmacology* was edited and written by Professor Viktorija Dragojević Simić, Professor Silva Dobrić, Professor Momir Mikov, and Professor Ranko Škrbić, with as many as 20 co-authors from the Faculty of Medicine of the Military Medical Academy of the University of Defence in Belgrade, the Faculty of Medicine in Novi Sad, the University of Novi Sad, and the Faculty of Medicine in Banja Luka, University of Banja Luka.

It was necessary to upgrade and enrich the knowledge of drugs acquired by the medical students during the “Pharmacology” course with the content necessary for the everyday clinical practice of future medical doctors. In fact, an effort was made by the authors to present clinical pharmacology comprehensively, taking into account the fact that it is a modern interdisciplinary branch of medicine characterized by intensive development. With this textbook, the authors tried to rectify the insufficient representation of clinical pharmacology literature in the Serbian language.

However, as is usual in a textbook like this, the authors first dealt with the development of this discipline in the period of the existing Socialist Federal Republic of Yugoslavia and its scope in Serbia, mentioning those who should be given credit mostly for developing clinical pharmacology.

Chapters dealing with clinical pharmacokinetics, clinical importance of drug pharmacodynamics, good laboratory practice in preclinical trials, and drug interactions form a rounded whole. They represent topics that medical students have already encountered during the “Pharmacology” course but are now presented through a new clinical approach.

Considering the importance that clinical trials of new drugs have for the individual patient, but also for the wider social community, as well as the relevance of the topic, the authors have dealt with it comprehensively by including his-

Udžbenik pod nazivom „Osnovi kliničke farmakologije“, uredili su i napisali profesor dr Viktorija Dragojević-Simić, profesor dr Silva Dobrić, profesor dr Momir Mikov i profesor dr Ranko Škrbić, sa još čak 20 koautora sa Medicinskog fakulteta Vojnomedicinske akademije Univerziteta odbrane u Beogradu, Medicinskog fakulteta Novi Sad Univerziteta u Novom Sadu i Medicinskog fakulteta Univerziteta u Banja Luci.

Bilo je potrebno da se znanje o lekovima koje su studenti usvojili u okviru predmeta „Farmakologija“ nadogradi i obogati sadržajem koji je neophodan za svakodnevni klinički rad budućih lekara. Zapravo, nastojalo se da se klinička farmakologija predstavi sveobuhvatno, uzimajući u obzir činjenicu da se radi o savremenoj interdisciplinarnoj grani medicine, koju karakteriše intenzivan razvoj. Ovim udžbenikom autori su pokušali da isprave nedovoljnu zastupljenost literature za kliničku farmakologiju na srpskom jeziku.

Ipak, kako je uobičajeno, autori su se najpre bavili razvojem te discipline u periodu postojanja Socijalističke Federativne Republike Jugoslavije i njenim dometima u Srbiji, pominjući one ličnosti kojima treba pripisati najviše zasluga za razvoj kliničke farmakologije.

Poglavlja o kliničkoj farmakokinetici, kliničkom značaju farmakodinamike lekova, dobroj laboratorijskoj praksi u pretkliničkim ispitivanjima i interakcijama lekova čine jednu zaokruženu celinu. Ova poglavlja predstavljaju teme sa kojima su se studenti medicine već susretali na predmetu „Farmakologija“, ali su predstavljene kroz nov, klinički pristup.

S obzirom na značaj koji klinička ispitivanja novih lekova imaju za pacijenta – pojedinca, ali i za širu društvenu zajednicu, kao i na značaj teme, autori su se njom bavili

tory, methodology, ethics, statistics, and especially good clinical practice in clinical trials, as an internationally accepted standard that guides us to properly conduct studies involving humans.

The chapters that refer to the branches of clinical pharmacology that have been known for a long time, both globally and in our country, are the ones dealing with pharmacovigilance, pharmacoepidemiology, and pharmacoconomics. On the other hand, the chapters on the implementation of the principles of pharmacogenomics in modern pharmacotherapy refer to both current and future opportunities in the realization of the implementation of personalized medicine in everyday medical practice.

Important topics, such as generic, substandard and falsified drugs, biotechnological drugs and biosimilars, as well as the ones concerning clinical trials proving the biological equivalence of investigated drugs, are also presented with contemporary knowledge.

Other essential topics, such as those on national policy of drugs and lists of medicines, as well as pharmacotherapy in special clinical states and age groups, are also covered in the first part of the textbook. Chapters on herbal and homeopathic medicines, over-the-counter drugs, and medical devices, which are also included, should inform future medical doctors about topics they are probably not yet sufficiently familiar with.

As it is very important for medical students to accept the concept of rational use of drugs as well as the currently generally accepted position that medicine must be based on evidence, the authors also dealt with these topics. In the textbook, the authors also discuss practical advice on how to obtain pharmacotherapeutic aspects of the medical history from patients, which is completely neglected and insufficiently developed in our clinical practice.

Most of the texts are accompanied by tables and graphs, and after each of them, a list of contemporary literature is attached. The literature often features authors' own publications, among others, speaking in favor of their long-term work and rich experience in the field of clinical pharmacology.

The second part of the book presents more than 30 clinical cases, such as examples of rational drug prescribing, including acute drug poisoning. They were chosen primarily according to their frequency and importance for the medical doctor in primary health care or as additional practical clarification of certain topics that were already covered in the first part of the textbook. These texts are also accompanied by appropriate additional literature.

In the third part of the textbook, five examples of pharmacokinetic tasks are given since students should gain insight into the possibility of calculating and applying the pharmacokinetic parameters of drugs in real-life clinical situations.

This textbook is the result of the contribution of a large number of authors who teach clinical pharmacology as a part of undergraduate and postgraduate education, including health specialization. It is a significant contribution to the expert literature in this field in the Serbian language. Due to this, it is adapted to the curriculum that students should mas-

sveobuhvatno, uključujući istoriju, metodologiju, etiku, statistiku, a posebno dobru kliničku praksu u kliničkim ispitivanjima, kao međunarodno prihvaćenom standardu koji nas upućuje na pravilno izvođenje studija koje uključuju ljude.

Poglavlja koja se odnose na one grane kliničke farmakologije koje su već dugo poznate u svetu, pa i kod nas, su ona koja se bave farmakovigilansom, farmakoepidemiologijom i farmakoekonomijom. S druge strane, poglavlja o implementaciji principa farmakogenomike u savremenu farmakoterapiju ukazuju i na sadašnje i buduće mogućnosti da se realizuje težnja za implementacijom personalizovane medicine u svakodnevnu lekarsku praksu.

Značajne teme, kao što su generički, supstandardni i falsifikovani lekovi, biotehnoški lekovi i biosimilari, kao i koncept paralelnosti lekova i ispitivanja koja dokazuju biološku ekvivalentnost ispitivanih lekova, takođe su savremeno obrađene i prikazane.

U prvom delu udžbenika obrađene su i druge bitne teme, poput onih o nacionalnoj politici lekova i listama lekova, kao i farmakoterapiji u posebnim kliničkim stanjima i uzrasnim grupama. Poglavlja o biljnim i homeopatskim lekovima, lekovima bez recepta i medicinskim sredstvima, koja su takođe uključena, trebalo bi da informišu buduće lekare o temama sa kojima verovatno još uvek nisu dovoljno upoznati.

Kako je za studente medicine veoma bitno da još u toku studija prihvate koncept racionalne primene lekova i sada opšteprihvaćeni stav da medicina mora biti zasnovana na dokazima, autori su se bavili i tim temama. Autori su se u ovom udžbeniku takođe bavili i praktičnim savetima o tome kako uzeti farmakoterapijsku anamnezu, što je u potpunosti zapostavljeno i nedovoljno razvijeno u našoj kliničkoj praksi.

Većina tekstova je obogaćena tabelama i grafikovima, a uz svaki je dat i popis savremene literature, u kome su često navedene i sopstvene publikacije autora, što govori o njihovom dugogodišnjem radu i bogatom iskustvu u oblasti kliničke farmakologije.

U drugom delu udžbenika dat je prikaz više od 30 kliničkih slučajeva, odnosno primera racionalnog propisivanja lekova, uključujući i akutna trovanja lekovima. Oni su birani prevashodno prema njihovoj učestalosti i značaju za lekara u primarnoj zdravstvenoj zaštiti ili kao dodatno praktično objašnjenje pojedinih tema koje su obrađene u prvom delu knjige. Ti tekstovi su takođe praćeni odgovarajućom dodatnom literaturom.

U trećem delu udžbenika dato je pet primera zadataka iz farmakokinetike, kako bi studenti dobili uvid u mogućnost izračunavanja i primene farmakokinetičkih parametara lekova u realnim kliničkim situacijama.

Ovaj udžbenik je plod rada velikog broja autora koji predaju kliničku farmakologiju u okviru dodiplomskih i posle diplomskih vidova edukacije, uključujući i zdravstvenu specijalizaciju. On predstavlja značajan doprinos nastavnoj literaturi iz te oblasti na srpskom jeziku. Zbog svega navedenog, prilagođen je nastavnom planu i programu koje studenti treba da savladaju kroz predmet „Klinička

ter through the “Clinical Pharmacology” course at all three Medical Faculties mentioned at the beginning of the text. However, the textbook can also serve as a starting point for the acquisition of new knowledge for medical doctors in post-graduate education in this field, as well as for other medical specialists who want to refresh and supplement their knowledge on some of the topics covered in this textbook.

farmakologija“ na sva tri Medicinska fakulteta navedena na početku teksta. Međutim, ovaj udžbenik umnogome može poslužiti kao polazna osnova za sticanje novih znanja i lekarima na poslediplomskim vidovima edukacije iz ove oblasti, ali i drugim specijalistima koji žele da osveže i dopune svoje znanje o nekoj od tema kojima se bavi ova knjiga.

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