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Titolo	Recent Advances in Therapeutic Drug Monitoring and Clinical Toxicology // edited by Seth Kwabena Amponsah, Yashwant V. Pathak
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ISBN	3-031-12398-0
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (384 pages)
Collana	Biomedical and Life Sciences Series
Disciplina	615.9 615.7
Soggetti	Pharmacology Toxicology Pharmaceutical chemistry Pharmaceutics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Therapeutic and toxic concentration of drugs in biological matrices -- Analytical techniques for therapeutic drug monitoring and clinical toxicology -- Plasma therapeutic drug monitoring and clinical toxicology -- Dried blood spots in therapeutic drug monitoring and toxicology -- The role of artificial intelligence in therapeutic drug monitoring and clinical toxicity -- Therapeutic drug monitoring and optimal pharmacotherapy with medicines of narrow therapeutic index -- Therapeutic drug monitoring (TDM) and toxicological studies in alternative biological matrices -- Analyzing data from therapeutic drug monitoring, pharmacokinetics, and clinical toxicology studies -- Reducing toxicity in critically ill patients by using therapeutic drug monitoring -- Quality assurance of samples for therapeutic drug monitoring and clinical toxicology -- Therapeutic drug monitoring and toxicology of anticancer drugs -- Therapeutic drug monitoring and toxicology of immunosuppressant -- Therapeutic drug monitoring and toxicology: relevance of measuring metabolites -- Recent advances in nanosensors for Therapeutic Drug Monitoring (TDM) -- Organ toxicity by immunosuppressive drugs in solid organ transplantation -- Artificial intelligence-based techniques to assess drug toxicity in drug induced

liver injury (DILI) disease -- Drug dose and therapy individualization -- Models for drug individualization: patient to population level -- Toxicity evaluation of nanomedicine -- Biochemical indices of drug toxicity -- Therapeutic drug monitoring and clinical toxicology: challenges and future directions.

Sommario/riassunto

This book gives an overview of therapeutic drug monitoring (TDM) and its clinical application. It also highlights recent advances in toxicological studies, as they relate to therapeutic drug monitoring. This is one of the few books available on the market that covers TDM. Therapeutic drug monitoring (TDM) is a clinical decision-making tool that enables dosage regimen adjustments based on clinical and laboratory measurements. TDM not only involves the measuring of drug concentrations but also interpretation of the results. There is a strong correlation between drug concentrations in body fluids and outcome than between dose and outcome. The chapters include coverage of analytical techniques, pharmacokinetics, therapeutic indices, artificial intelligence and recent advances in toxicological studies. The book fills a gap in published literature and provides reliable information on; Analytical techniques in TDM and clinical toxicology TDM and pharmacokinetic studies TDM of drugs with narrow therapeutic indices Artificial intelligence in TDM and clinical toxicology Future directions and challenges .
