## Methods of Therapeutic Drug Monitoring **Including Pharmacogenetics**

Second Edition

Volume 7 Handbook of Analytical Separations Series

Edited by Georg Hempel

Addresses all aspects of drug monitoring, including laboratory work, pharmacokinetic analysis, and clinical aspects, providing readers with a thorough understanding of the therapeutic drug monitoring process

### **Key Features:**

- Unique interdisciplinary approach appeals to a wide range of users, ensuring more successful drug monitoring applications in a number of clinical environments.
- Each chapter is written by an author from an international lab, providing a global perspective that can be applied in various regulatory environments.
- · Features additional therapeutic drugs to reflect the rising number of immunocompromised patients.
- Includes a new mass spectroscopic methods chapter to capture the frequent use in therapeutic drug monitoring and the improved availability of liquid chromatography tandem mass spectrometry across laboratories.

Methods of Therapeutic Drug Monitoring including Pharmacogenetics, second edition, the 7th volume in the Handbook of Analytical Separations series, covers all aspects of drug monitoring including laboratory work, pharmacokinetic analysis, and clinical aspects. This enables readers from different fields—from the physician on the ward to the analytical chemist—to understand the whole process of therapeutic drug monitoring and to avoid common pitfalls which can arise in all steps of the process.

The new edition contains updated information on analytical techniques for the quantification of drugs as well as pharmacogenetic and pharmacogenomic methods. Recent improvements in column technology for liquid chromatography are covered, as is the use of mass spectrometry as a detector for all chargeable compounds, which is becoming affordable for many laboratories. Also included are updates on sample preparation, including dried blood spot technology and microextraction methods. Coverage has been expanded to drugs new to the market, such as tyrosine kinase inhibitors in oncology and the monitoring of immunosuppressant drugs. The chapter on pharmacokinetic methods is also now streamlined to focus on the applied statistical methods in order to clearly explain the procedures and possible pitfalls.





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