

Preface

Toxicology Testing



Michael G. Bissell, MD, PhD, MPH
Guest Editor

With the growth of the prescription drug epidemic, the advent of new classes of rapidly evolving designer drugs, continuing expansion of the mainstream illicit drug trade, and widespread adoption of per se drug and alcohol limits under state laws, the demand for clinical and forensic testing for drugs-of-abuse has never been greater. In this volume, the contributors have provided valuable historical background as well as reviewed the latest trends in these areas.

The topics covered here move beyond those dealt with over the years in earlier *Clinics in Laboratory Medicine* editions devoted to various aspects of Toxicology. They begin with a historical perspective on the evolution of clinical toxicology/therapeutic drug testing as we know it today in hospital- and clinic-based settings and explore the extent and context of the growing societal problem of diversion and misuse of prescription pain medications and the structuring of laboratory operations for the support of pain clinics' need to monitor compliance, as well as the newly developing field of ethanol biomarker testing.

In the area of illicit (and/or "quasi-licit") street drugs, the scope of the problem with newly emerging psychoactive compounds is dramatized and then explored in more detail in the case of the "bath salt" (synthetic cathinone) phenomenon.

There follow some important methodological updates on drugs-of-abuse immunoassay methodology, testing of neonatal specimens, and a variety of other different body fluid specimen matrices finding increasing use in this field, as well as a general review of methods and procedures specific to forensic and postmortem testing and a glimpse of the future in which pharmacogenetics will surely eventually have an impact.

Finally, since the practicality of all clinical and forensic drug testing is that it takes place in one of the most highly regulated environments of just about any field, an overview of this array of regulations is provided.

Michael G. Bissell, MD, PhD, MPH
Department of Pathology
The Ohio State University
4173 Graves Hall
333 West 10th Avenue
Columbus OH 43210, USA
Wexner Medical Center at the Ohio State University
4173 Graves Hall
333 West 10th Avenue
Columbus, OH 43210, USA
E-mail address:
Michael.Bissell@osumc.edu