Pathologic Basis of Disease is highly recommended as a superior reference text for all clinical chemists, especially those in academic practice with teaching responsibilities.

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This book is intended as a textbook for students taking a one-semester course in forensic toxicology or as a reference book for laboratorians. The book consists of 20 chapters written by 17 contributing authors who are practicing forensic toxicologists and recognized as experts in this discipline. The chapters are logically organized into three parts: Introduction, Methodologies, and Analytes.

Part I (Introduction) comprises ~20% of the book and is divided into four chapters: Postmortem Forensic Toxicology, Human Performance Toxicology, Forensic Drug Testing, and Pharmacokinetics and Pharmacodynamics. Chapters 1–3 provide a broad overview of these distinct sub-disciplines of forensic toxicology and some of the specific considerations unique to each one. Chapter 4 presents a clear, concise presentation of the principles of drug absorption, distribution, metabolism, and elimination, with some useful practical applications (e.g., how much drug was taken, when was the drug taken) that are nicely illustrated by case histories. Part II, ~30% of the book, consists of five chapters on Specimen Preparation, Spectrophotometry, Chromatography, Immunoassay, and Mass Spectrometry. These chapters contain complete descriptions of the fundamentals of the analytical methods used in the analysis of drugs and toxins and the scientific principles underlying these methods, including their strengths and limitations. Finally, Part III comprises about one-half of the book and contains chapters on Alcohol, Central Nervous System Depressants, Opioids, Cocaine, Marijuana, Amphetamines and Sympathomimetic Amines, Hallucinogens, Antidepressants, Carbon Monoxide/Cyanide, Inhalants, and Metals. This part of the book provides an excellent overview of the major classes of toxic substances encountered and measured by the forensic toxicologist. Each chapter contains a good discussion of the chemistry, toxicity, and pharmacokinetics of each class of toxins, as well as the relevant analytical and interpretive considerations.

Overall, the book is clearly and concisely written and logically organized; it contains a great deal of practical information, including many useful figures and tables. The index is complete, and topics are cross-referenced for easy location. Remarkably, the book is quite comprehensive, considering its moderate length and intent as an introductory text. One noticeable omission is the absence of any mention of the relatively new “date rape” drugs, flunitrazepam and γ-hydroxybutyrate, in the chapter on CNS depressants. Aside from a few typographical errors, I found only one significant error that, unfortunately, was not detected in the final proofreading. Fig. 1 in the chapter on opioids was intended to show the chemical structures of opioid analgesics but instead lists the oral and parenteral therapeutic doses of these drugs.

In conclusion, I believe that this book successfully fulfills its primary purpose as an introductory text for students of forensic toxicology. In addition, it should serve as a valuable front-line reference for clinical laboratorians who do not work directly in this field but are frequently consulted with questions concerning overdoses and poisonings.

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The practice of delivering healthcare to patients is changing continuously. Therefore, one does not manage change; rather, one must continuously manage through change. One major force reducing the variability in providing direct patient care by all members of the healthcare delivery team has been the introduction of clinical practice guidelines or evidence-based medicine. A review of practice guidelines published in the last 10 years demonstrated a great need for improvement, especially in the utilization of scientific evidence (1). Margolis and Cretin have organized a logical, readable description of clinical practice guidelines, from the initial design, to local modification, implementation, review, and strategies for assessment. Numerous examples and exercises are provided that help to emphasize the major issues discussed. Clinical practice guidelines must be “clear, useable and improve patient care” to be of value. They may be designed to reduce clinical practice variation, reduce costs, or outline the approach to uncommon problems.

The evaluation of the scientific evidence used to build a practice guideline is challenging. Robert Fletcher in chapter 3 reviews rating and grading systems for this analysis. Not all kinds of scientific evidence are of equal value. Specific issues related to the scientific evidence supporting the use of laboratory tests in particular clinical situations are summarized by Carl E. Speicher (2). This summary is invaluable if one is assigned to a practice guideline committee trying to decide how frequently to order a laboratory test to evaluate therapy. During the evaluation of scientific evidence, the most weight is usually placed on randomized controlled trials. However, in real life, the controlled environment of such a trial may not be reproducible (3). Margolis and Cretin address many
practical issues in their book, such as who signs off on a completed practice guideline, what methods are available for consensus building in a diverse group, and what measures are useful in monitoring the success or failure of an established guideline. Certainly there are many hurdles to cross from inception to implementation to updating practice guidelines, but the effort is rewarded when patient outcome is improved. This book is an excellent resource for the enthusiastic or reluctant participant in the art of practice guideline implementation.

References

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Correction
In the article by J.K. Fallon, A.T. Kicman, J.A. Henry, P.T. Milligan, D.A. Cowan, and A.J. Hutt, entitled “Stereospecific Analysis and Enantiomeric Disposition of 3,4-Methylenedioxymethamphetamine (Ecstasy) in Humans” (Clin Chem 1999;45:1058–69), the minimum value given for the ratio at the top of the right-hand column on page 1066 is incorrect. The value should read “0.23 ± 0.03”, not “0.02 ± 0.03” as published. The authors regret the error.