BOOK REVIEW

Daniel S. Isenschmid,¹ Ph.D.

Review of: *Medical-Legal Aspects of Alcohol,* Fourth Edition

REFERENCE: Garriott JC, editor. Medical-legal aspects of alcohol, 4th ed. Lawyers and Judges Publishing Company, Inc., Tucson AZ, U.S.A., 2003, 452 pp.

This is the fourth edition of what is probably the definitive reference on the forensic toxicology of alcohol. This new edition includes several new authors while retaining updated and revised contributions that experts have penned for earlier editions.

This edition adds a new chapter on Alcohol Effects and Driver Impairment while the chapter on Computer Tools for Body Alcohol Evaluation has been dropped. This new chapter, written by Herbert Moskowitz (who edited the erstwhile journal, Alcohol Drugs and Driving) is a welcome and valuable addition to this book.

Two chapters that were included in the third edition were written by new authors for this edition. The Disposition and Fate of Ethanol in the Body (by A.W. Jones) has been greatly expanded and includes many more details on research performed in this subject along with generous use of figures to support the text. This chapter is an excellent resource for both pharmacologists and toxicologists. The Role and Responsibilities of an Expert Witness (by Theodore Shults and Yale Caplan) is a nuts and bolts practical introduction that should be read by anyone new (and not so new) to the courtroom. The chapter is written to be applicable to expert witnesses as a whole and not just in alcohol-related cases.

These aforementioned topics are really the major changes to the new edition. In such a well-established area of forensic toxicology, it is not surprising that some chapters have only received very minor, if any, revisions. To be fair, some of these are chapters that, while important, are not the subject of significant new research. These chapters include: The Chemistry of Alcoholic Beverages; Pharmacology and Toxicology of Ethyl Alcohol; The Biochemistry and Physiology of Alcohol (which unfortunately did not discuss new research on biochemical markers of alcohol use such as ethyl glucuronide and carbohydrate deficient transferrin); Analysis for Alcohol in Postmortem Specimens (which retains a section on gastric contents and bile but the subject header was lost in editing); Reporting of Laboratory Results; Alcohol and the Law (which did not include any additional legal citations since the last edition); and Alcohol Testing in the Workplace (that primarily included updates on approved equipment and regulatory citations). One chapter, Breath as a Specimen for Analysis for Ethanol and other Low-Molecular-Weight Alcohols by Morton Mason and Kurt Dubowski, is a classical chapter on this topic that has been deliberately unchanged since the First Edition of this book. However, the application of the use of breath in testing has been regularly updated by Patrick Harding in his chapter on Methods for Breath Anaylsis.

A few additional chapters either underwent more substantive rewriting and/or included more significant updating. These chapters include: Blood, Urine and Other Fluid and Tissues Specimens for Alcohol Analysis; Methods for Fluid Analysis; Quality Assurance; Collection and Storage of Specimens for Alcohol Analysis; Epidemiological and Experimental Basis of Psychomotor Performance Impairment (both of these chapters have been substantially rewritten and include many new figures); and both the Prosecuting and Defending Driving-under-the-Influence Cases chapters.

Finally, there are some formatting changes to this edition. Each chapter contains a synopsis which is useful for locating the material you wish to read. The index, though improved, still is more like a word index found in a deposition transcript than a true subjectdirected index. An additional significant change is the size of the book. The third edition was a $6 \times 9''$ formatted book using full-page pagination. The fourth edition is an $8-1/2 \times 11''$ volume utilizing a two-column text format. This makes the new edition much easier to read than the previous edition (especially for those of us with presbyopia) as well as making it a larger weapon to wield in the courtroom. For those who observe these things, it should be noted that the fourth edition has also been renamed "Medical-Legal Aspects of Alcohol" from "Medicolegal Aspects of Alcohol." Perhaps this was done to align this text with "Medical-Legal Aspects of Drugs" available from the same publisher (though only in the 6×9 in. format).

¹ Chief Toxicologist, Wayne County Medical Examiner's Office, Detroit, MI 48207.