

BOOK REVIEW

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Review of: *Pagliari's Comprehensive Guide to Drugs and Substances of Abuse*

REFERENCE: Pagliaro LA, Pagliaro AM. *Pagliari's comprehensive guide to drugs and substance of abuse*. American Pharmacists Association, Washington, DC, 2004.

This is a good resource text for the forensic scientist to have at arm's length because it serves multiple purposes. The book is divided into two major parts. The more traditional treatment of substance abuse is covered in the first 155 pages. The second part is 276 pages of monographs of 95 abused substances from acetone to zolpidem! It is the latter section that makes this a particularly valuable reference text. Another attractive feature is that the book is thoroughly footnoted with primary references throughout both sections.

The introductory chapter acquaints the reader with the many variables that impact the field of substance abuse. The stages of drug abuse from the initial use through compulsive use are reviewed. The authors spend a significant part of this chapter discussing a model of trends and predictions of drug use that they proposed in the 1980s. It is referred to as the Meta Interactive Model of North American Use of the Drugs and Substances of Abuse (MIMNAUSA). The model entails four dimensions of substance abuse graphically represented by a cube—the person dimension, the societal dimension, the time dimension, and the drug or substance of abuse dimension. A number of variables comprise each dimension. For example under the person dimension, some of the social parameters include peer pressure, education, economic status, gang membership, and sexual abuse—any of which could play a role in whether or not an illicit substance will be used. The authors go into excessive detail in treating this subject matter for the audience likely to read the book. However, these are important aspects of substance abuse with which scientists, at least, should be familiar. The introduction concludes with a discussion of the topic of “dual diagnosis,” the presence of two mental disorders in the same individual at the same time. It has become increasingly recognized that individuals with a substance use disorder may have a coexisting psychiatric disorder making successful treatment more challenging.

The classes of abused substances are discussed in the next three chapters—psychodepressants, psychostimulants, and psychodelics. The psychodepressants include opiates, alcohol, pre-

scription sedative-hypnotics, and volatile solvents/inhalants. The psychostimulant chapter reviews the actions of cocaine, amphetamine and related compounds such as ephedrine, caffeine, and nicotine. Mind-alerting substances are covered in the psychodelics (psychedelics) chapter. Older and newer hallucinogens are discussed. In addition, substances with hallucinogenic properties that are not classified as “hallucinogens” *per se*, such as cannabis and the dissociative anesthetics phencyclidine and ketamine are reviewed. The core areas covered for each agent or group of drugs include the history, patterns of use, pharmacology, clinical responses, toxicities, dependence potential, withdrawal reactions, and theories of use. Important reactions specific to a substance are also addressed such as impaired driving, pulmonary toxicity, and the amotivational syndrome resulting from marijuana use. As a pharmacologist, I was particularly pleased to see that the pharmacokinetics of the abused substances including metabolic pathways and routes of absorption and excretion was addressed. This area is often ignored in drug abuse texts, yet it may play an important role in the behavioral and physiologic responses to these agents, particularly when multiple drugs are used.

The monographs complement the first section quite well. For example, there is an impressive array of information on newer hallucinogens, GHB, piperazines, and ketamine that usually appear as “club drugs” and drugs used in facilitated sexual assault—the date-rape drugs. Naturally-occurring substances from marijuana to nutmeg to *Salvia divinorum* are equally well represented as are synthetic compounds. The text will provide a single, convenient resource where pharmacological, behavioral and toxicological information on relevant drugs in the field can be located. Furthermore, each monograph includes several primary literature references which may prove useful to a forensic scientist preparing for testimony.

In summary, forensic scientists and students requiring a good working knowledge of abused substances should find this text to be a valuable resource. The Pagaris have done an excellent job of combining a fairly detailed overview of substances of abuse and an extensive list of medical monographs of currently abused drugs into an understandable text. That is why I have required this text for the substance abuse pharmacology course that is offered to our forensic science graduate students and doctoral students.

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