

BOOK REVIEW

Laureen J. Marinetti,¹ B.S., M.S., Ph.D.

Review of: *Toxicological Aspects of Drug-Facilitated Crimes*

REFERENCE: Kintz P, editor. Toxicological aspects of drug-facilitated crimes. Waltham, MA/San Diego, CA: Academic Press (Elsevier), 2014, 292 pp.

This book is a comprehensive overview of drug-facilitated crimes (DFC) focusing on specimen selection, drug interpretation, and cases examples. The book begins with an in-depth history of the evolution of case management in DFC cases in France. The text continues with the presentation of epidemiological data in DFC cases from 14 additional countries, including a table that lists numerous different drugs documented to have been involved in at least one DFC case. This table clearly shows that GHB and flunitrazepam are not the only or even likely drugs involved in this type of case. The pharmacology and pharmacokinetics of some of the likely drugs and drug classes involved in DFC are discussed. An entire chapter is devoted to the number one drug most commonly encountered in DFC, ethanol (alcohol). Drug-facilitated sexual assault (DFSA) is also discussed in the ethanol chapter and is divided into two types: opportunistic and proactive. Along with an in-depth discussion of the pharmacokinetics and pharmacodynamics of ethanol, biomarkers formed during ethanol use and congeners present in the ethanol product are also considered and what role they may play in the toxicological investigation of DFC. There is a very detailed chapter of memory and how DFC drugs work to disrupt it. Episodic, semantic, short-term, working, intermediate, declarative (explicit) long-term, procedural (implicit) long-term, and autobiographical memory are defined and discussed. It is pointed out that memory impairment from ethanol use alone is commonly observed in combination with obvious outward signs of intoxication. This is not necessarily true with memory impairment due to drug(s) use considering that obvious outward signs of intoxication may not be present. Due to its ubiquitous avail-

ability and use (second only to ethanol), the pharmacokinetics and pharmacodynamics of cannabis and its role as a DFC drug are thoroughly covered. Even though cannabis is commonly detected in DFC cases, it is difficult to directly associate it to the crime. Collection and analysis of blood and urine specimens are discussed including several references regarding analytical methodology and recommendations of the limit of drug detection to strive for in urine specimens. To expand the drug detection window, the use of hair specimens for toxicological analysis is thoroughly covered. The proper collection, analysis, and interpretation of drugs in hair are discussed in detail in its own chapter. There is excellent use of case examples to illustrate concepts throughout the book. The chapter that covers published cases and the drugs involved contains a wonderful table of references of DFC cases based on the drug(s) detected. There is a chapter, which is oddly titled, "The Specific Problem of Children and Old People" that covers DFC in the young and elderly. This chapter takes into consideration the differences in pharmacokinetics that these populations exhibit to point out how children and the elderly are particularly vulnerable to DFC and how extra care should be used in the interpretation of drug concentrations. The last chapter is very short and covers the clinical presentation of the victim and how they should be treated by medical personnel. There are also numerous tables containing published cases organized by drug(s) detected, expected single-dose concentrations of drug(s) in hair and drug pharmacodynamics and pharmacokinetics to name a few. Even though some of the tables are oriented awkwardly in the text, the information is extremely useful. I would highly recommend this technical book for toxicologists, pharmacologists, and medical personnel who encounter DFC cases. There is a wealth of information in the book and in the references listed at the end of every chapter.

¹Redwood Toxicology Laboratory, Santa Rosa, CA.