

## BOOK REVIEW

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### Review of: *On-Site Drug Testing*

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**REFERENCE:** Jenkins AJ and Goldberger BA, editors. *On-site drug testing*. Humana Press, Totowa, New Jersey, USA, 2002, 276 pp.

This book is a comprehensive work on the history, development, and techniques involved in testing for drugs of abuse in the workplace. Those individuals who are just getting into the field of on-site drug testing as well as those routinely involved will find something of interest contained in this volume. The first chapter introduces the reader to point of care testing (POCT) and the decision making processes involved with selection and use of drug testing technology. The book proceeds with discussions of the testing used in therapeutic drug monitoring, chapters on the testing technologies themselves and concludes with a review of studies completed on the reliability of noninstrumented drug testing (NIDT) devices and finally a discussion of sample adulteration and the consequences to on-site drug testing.

Each chapter of the text begins with a brief introduction to the topic. This is followed by in depth discussion of the technology behind the technique being evaluated. The chapters conclude with a brief summary. The information provided in each chapter is complete, yet all chapters are kept to a length which allows the reader to finish each quickly. All chapters utilize this format making it easy for the reader to follow through the various subjects. The chapters are extensively referenced providing the interested reader with the additional resources to do more extensive reading in any topic.

The first chapter, as previously stated, deals with point of care testing. This related on-site testing to the clinical setting and described the various considerations faced by the testing facilities. The second chapter discusses on-site testing for therapeutic drugs and follows the formula established by Chapter 1. The need for testing is discussed followed by descriptions of instrumentation used in the detection of drugs. The author then describes the monitoring of antithrombotic medications as an example. Workplace drug testing is discussed in a similar manner in Chapter 3. There is a brief background on the progression to on-site testing and the protocols for this testing. Included are pertinent questions about record keeping and the future of this type of testing. Following in the natural progression, Chapter 4 speaks to the requirements and standards to be followed in on-site testing and legal considerations for the workplace implementing programs and the need for confirmatory

testing and medical review officers. Examples of legal actions against workplaces were cited as a way of discussing the liability risks involved with this testing. Concluding the introductory portion of the book, Chapters 5 and 6 discussed the use of on-site devices in the criminal justice system and in DUI cases, respectively.

The next portion of the text included techniques for testing. Starting with two chapters on the use of saliva as a medium for testing, subsequent chapters dealt with technologies in use today. Included are AccuSign, EZ-SCREEN, Frontline, Abuscreen ONTRAK, OnTrak TesTcup and TesTstik, Triage, and Visualine II. Information provided in these chapters includes the technology behind the tests, procedures for testing and performance data. Included in the technical portions are illustrations that serve to enhance the description of the processes taking place in the test device. In many chapters, additional useful information about detection levels and selectivity are given. Some chapters include pictures that show the devices and positive and negative results. This section concludes in Chapter 17 which is a review of test devices for drugs of abuse. This chapter relates information gathered in two studies completed by Duo Research evaluating the performance, operational characteristics and accuracy of noninstrumented drug testing devices being used for on-site testing. The studies were completed in 1996 and 1998 and were funded federally by the Administrative Office of the U.S. Courts and the Department of Health and Human Services (DHHS) Division of Workplace Programs (DWP), respectively. The information is complete and presented in a manner which makes it easy for the reader to make comparisons.

The last chapter of this text covers the topic of sample adulteration. Included are the common adulteration techniques and their mechanisms. Checks for adulteration are included as well as mention of the AdultaCheck 4. This product has been designed to determine adulteration of sample by determining unacceptable pH, and creatinine levels and check for the presence of glutaraldehyde and nitrate.

This text will provided the reader with information necessary to evaluate the current techniques being used for on-site drug testing. It will also educate the reader in the technology for these products and aid in the decision making process if it becomes necessary to discuss or purchase this type of device. I compliment the editors and authors for their work on the text and will be sure to keep a copy in my laboratory.

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