

BOOK REVIEW

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Review of: *The Robert F. Borkenstein International Symposium on Alcohol and Forensic Science—The Influence of Alcohol and Drugs on Transportation Safety*

REFERENCE: The Robert F. Borkenstein international symposium on alcohol and forensic science—the influence of alcohol and drugs on transportation safety. *Forensic Sci Rev* 2000;12(1/2): 702.

This is an important contribution to the field of forensic alcohol testing and a testament to its historical development with a focus on one of its stalwarts, Dr. Robert F. Borkenstein. The nine chapters may be classified into three sections. First, the life and work of Dr. Borkenstein (one chapter), second, a review of principles and the development of alcohol testing and programs (six chapters), and third, clinical aspects (two chapters). The appreciation of history is fundamental to the advancement of science and this publication uniquely combines science with history and allows the reader to review the current status of alcohol testing while tracing the path of such knowledge.

The first section, a chapter by Doug Lucas, describes the significant and sustained contributions of Dr. Borkenstein, a true pioneer. It traces his invention of the Breathalyzer in 1954, the instrument that was the mainstay of breath alcohol testing for over 30 years to follow, through the Grand Rapids Study in 1968, and his influence on training and research. The Borkenstein “Breathalyzer” name became to breath testing and highway safety what “Ford” and “Frigidaire” were to America.

The second section comprises six review chapters that span the field of alcohol testing, including principles, epidemiology, and countermeasures for highway safety with articles by noted researchers, A.W. Jones, R.G. Gullberg, J. Morland, P.F. Waller, and R.B. Voas. Jones provides a detailed survey and comparison of the

use of blood and breath alcohol concentrations. The review summarizes key studies, compares blood to breath ratios, and reviews Widmark’s seminal work on intoxication. Gullberg describes breath alcohol testing, emphasizing statistical evaluation of quality control. Waller provides a review of the epidemiology of the famed Grand Rapids Study, which clearly documented for the first time the rapid acceleration of crash risk associated with increasing blood alcohol concentration. This landmark study marked the beginning of unprecedented progress in drunk driving programs and demonstrated the relative risk curve. Voas discusses countermeasures and prevention programs to reduce alcohol related highway death before the offender gets on the road, to prevent alcohol and drug related traumatic injury and to prevent recidivism of convicted drivers. Jones further describes the measurement of alcohol in blood and breath for forensic purposes. He discusses the history and development of laws to combat drunk driving and experiences in countries around the world. Morland reviews the drugs other than alcohol and their impact on drugged driving.

The third section is comprised of two chapters that are clinical in nature, dealing with forensic psychiatry in substance abuse and the diagnosis of alcohol abuse. These two chapters do not fit well with the others and in fact represent a limited part of the wide clinical field dealing with alcoholism rather than alcohol testing and safety programs.

This is a very useful publication which is simultaneously modern and classical. Although it was not specifically organized as described above, it should have been and, with the exception of the clinical section, provides a significant reference for those who need technical information summarized as well as those with a love and eye on history and the historical development of one of the principal component fields in forensic science. Thanks to Dr. Borkenstein for guiding us along this path.

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