K47 An Evaluation of Oral Fluid Testing Devices During Drug Influence Evaluations

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After attending this presentation, attendees will understand the effectiveness of oral fluid testing when used in a law enforcement capacity and compare its effectiveness to a current accepted test.

This presentation will impact the forensic science community by providing an understanding of the needs and limitations available to Driving Under the Influence (DUI) enforcement regarding drug-impaired driving as well as the evaluation of the effectiveness of an oral fluid testing device in this context.

Oral fluid testing is rapidly advancing in accuracy and efficacy within the DUI enforcement community. The biggest hurdle for the acceptance of evidential oral fluid testing deals with the accuracy of the test. A secondary hurdle is the length of time required for the testing process. Both of these hurdles have a significant impact on law enforcement roadside investigations. A testing process that is inaccurate can result in the improper release of a drug-impaired driver, leading to drug-using drivers becoming more confident in their ability to escape detection, and can reinforce the behavior. Inaccurate results can also result in the improper arrest of an innocent motorist, resulting in the deprivation of civil rights. Law enforcement officers have limitations in the detention of motorists in the absence of evidence of a crime and courts have limited the length of detention of a motorist in non-criminal traffic infractions. A roadside testing process that consumes too much time can violate constitutional protections provided in the United States Constitution against unreasonable seizure. For roadside testing to be a viable tool for law enforcement, it must meet both of these requirements, coupled with legislative provisions permitting its use.

A recent certification training conducted as part of a drug evaluation and classification program provided a pool of 95 subjects who were suspected of drug impairment. These subjects were examined for physiological indicators of drug usage as part of a drug-influence evaluation using methods proven effective in both laboratory and field studies. During the evaluation, candidate Drug Recognition Experts (DREs), under the supervision of an experienced DRE instructor, identified physiological signs in the form of pupil size and nystagmus, pupillary reaction to light, psychophysical indicators of divided attention impairment, and collected vital signs to opine if the subject was impaired and the most likely category (categories) of drug responsible. Toxicological samples were collected from each subject in the form of oral fluid and urine and tested onsite. The results of the oral fluid tests were compared with the results of the urine testing and both were compared with the opinions reached during the drug-influence evaluation. This presentation will provide an evaluation of the Alere™ DDS2® device for both its accuracy when compared with the drug-recognition expert opinions and the results obtained from MEDTOX® VERDICT® urine field screening devices, as well as the time element required for the testing process.

Drug, Impairment, Oral