K27 Case Study: DUI With Multiple Prescription Drugs

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After attending this presentation, attendees will have been exposed to a case study involving drug impaired driving in which the toxicology results are bolstered by a video of the subject.

This presentation will impact the forensic community and/or humanity by demonstrating some of the impairing effects of Central Nervous System (CNS) depressant drugs and give the audience a better understanding of the physical effects of these drugs.

This case study involves a 39-year-old white male who is involved in a collision where he subsequently fled the scene. Eye witnesses were able to identify him to police and he was arrested at his home a short time later. The police in-car video shows a subject who is obviously under the influence of (CNS) depressants. After a breath alcohol reading of 0.00%, urine was obtained for toxicological analysis. This analysis revealed the presence of diazepam, nordiazepam, temazepam, alprazolam, hydrocodone, acetaminophen, dihydrocodeine, cyclobenzaprine, carisoprodol, and meprobamate.

With exception of acetaminophen, all of the drugs identified are prescription medications (or metabolites) that have CNS depressant actions. Diazepam is a benzodiazepine which is utilized clinically as an anxiolytic, anti-convulsant, sedative, and muscle relaxant. Nordiazepam and temazepam are active metabolites of diazepam which are also used clinically as sedative-hypnotics. Alprazolam is used primarily as an anxiolytic and to treat certain conditions such as agoraphobia and panic disorders. Hydrocodone is a semisynthetic derivative of codeine that is utilized as an analgesic and is often found in combination with acetaminophen. Dihydrocodeine is an active metabolite of hydrocodone that is also utilized clinically as an analgesic. Carisoprodol is used primarily as a centrally acting muscle relaxant with meprobamate being its primary metabolite. Meprobamate is also utilized clinically as a sedative, anxiolytic, and muscle relaxant. Cyclobenzaprine is a tricyclic compound that is structurally similar to amitriptyline but is utilized as a centrally acting muscle relaxant. Some of the more obvious effects of these CNS depressant drugs such as slurred speech, drowsiness, dazed appearance, diminished ability to concentrate or multi-task, and confusion are demonstrated on the video. Additionally, cyclobenzaprine is known to have some anti-histaminic activity which can result in dry mouth, which is also demonstrated on the video.

Drug Impaired Driving, CNS Depressants, Urine

 ** Presenting Author*