K47 Driving Under the Influence of Alprazolam

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After attending this presentation, attendees will have a better understanding of the prevalence of alprazolam in DUID cases and the lack of correlation between blood alprazolam concentrations and impairment.

This presentation will impact the forensic science community by adding to the body of knowledge regarding alprazolam concentrations found in Driving Under the Influence of Drugs (DUID) cases, observed impairment, and comparison to the indicators for central nervous system depressants in the Drug Recognition Expert (DRE) matrix.

Alprazolam, a high-potency benzodiazepine, is FDA approved for the treatment of anxiety and panic disorder and is one of the most prescribed medications and abused drugs worldwide. Sedation and impairment of cognitive function and psychomotor performance are some of the main problems associated with the use of benzodiazepines as anxiolytics. Patients using alprazolam commonly report adverse events, such as drowsiness, dizziness, and reduced alertness, especially in the first month of use. Alprazolam is commonly used with alcohol and other recreational drugs, presumably to achieve increased intoxication and manage undesirable drug withdrawal symptoms such as the downside or dysphoric phase of stimulant use and to alleviate the panic and paranoia caused from using high potency cannabis. The pharmacology of alprazolam will be reviewed as an attempt to understand why Alprazolam is such a popularly abused drug in suspected intoxicated driver cases across the United States.

Between 2007 and 2012, 28% of all blood DUI drug cases submitted to the Palm Beach County Sheriff's Office Crime Laboratory contained alprazolam, making this the most commonly detected drug. Of the 205 cases analyzed during this period containing alprazolam, only nine contained alprazolam alone (4.4%). The nine subjects were composed of six males and three females with a mean age of 45 years (range 17 – 72). Seven out of nine involved traffic crashes. Alprazolam concentrations ranged from 22 to 437ng/mL.

During the first six months of 2012, 13% of all DRE cases submitted to the Washington State Patrol Toxicology Laboratory contained alprazolam. Of the 64 DRE cases analyzed during this period containing alprazolam, only seven contained alprazolam alone (10.3%). The seven subjects were composed of four males and three females with a mean age of 38 years (range 24 – 57). Alprazolam concentrations ranged from 10 to 210ng/mL.

Summary data from all sixteen alprazolam-only cases followed by detailed information for four cases from Palm Beach County and seven Washington State cases will be presented. Detailed information will include testing protocol, analytical results, and case synopsis including observed impairment and clinical indicators of drug use. The indicators for central nervous system depressants in the DRE matrix will be compared and contrasted with these case investigations.

Alprazolam, DUID, DRE

 ** Presenting Author*