



Jurisprudence Section - 2015

F49 Driving Under the Influence of Drugs in Florida

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After attending this presentation, attendees will understand the potential disadvantages of Driving Under the Influence of Drugs (DUID) laws that list specific compounds rather than using more general “any impairing substance” language.

This presentation will impact the forensic science community by offering insight into challenges of combating the incidence of DUID when specific compounds are listed in laws. Overall statistics as well as specific case examples will be presented.

The laws in Florida for DUID list specific compounds (controlled drugs) that must be proven to cause the observed impairment. Many prescription and over-the-counter drugs that can cause significant impairment are not included in this list. Therefore, according to Florida law, one is not guilty of driving under the influence if the observed impairment is due to a drug not listed in the Florida statutes. The Palm Beach County Sheriff’s Office (PBSO) Toxicology Unit analyzes and reports all impairing substances, within the capabilities of the laboratory, regardless of the scheduled status of the drug.

In Florida, urine samples are routinely collected when breath alcohol results are below 0.08g/210L for DUID investigations. Blood samples are only collected when it is impossible or impractical to perform a breath alcohol test or if there is a serious bodily injury or death involved. From January 2007 to January 2014, 1,361 urine specimens and 914 blood specimens were analyzed for drugs by the PBSO Toxicology Unit. Urine specimens were screened by a basic extraction with scan Gas Chromatography/Mass Spectrometry (GC/MS) and an eight-panel Enzyme-Linked Immuno-Sorbent Assay (ELISA) for barbiturates, benzodiazepines, buprenorphine (2013 to 2014), carisoprodol, cocaine/Benzoyllecgonine (BE), opiates, oxycodone/oxymorphone, and cannabinoids. Blood specimens were screened by a basic extraction with scan GC/MS and a ten-panel ELISA for amphetamines, barbiturates, benzodiazepines, buprenorphine (2013 to 2014), carisoprodol, cocaine/BE, methamphetamines, opiates, oxycodone/oxymorphone, and cannabinoids. All positive results were confirmed with GC/MS.

Over the past seven years, 25% of all drug-positive blood specimens and 46% of all drug-positive urine specimens contained at least one non-controlled drug, often mixed with controlled drugs. The top ten non-controlled drugs excluding Selective Serotonin Reuptake Inhibitors (SSRIs) identified in both blood and urine are listed in Table I. The driving under the influence charges in many if not most of those cases with non-controlled drugs were either dropped or not even filed.

Table I. Top ten non-controlled drugs identified in blood and urine (excluding SSRIs)

Blood			Urine		
Analyte	# of Cases	% of Positive Cases	Analyte	# of Cases	% of Positive Cases
Diphenhydramine	37	5.4%	Diphenhydramine	112	9.7%
Zolpidem	29	4.3%	Zolpidem	83	7.2%
Tramadol	17	2.5%	(d) Methorphan	52	4.5%
(d) Methorphan	15	2.2%	Cyclobenzaprine	46	4.0%
Cyclobenzaprine	10	1.5%	Tramadol	41	3.6%
Trazodone	9	1.3%	Trazodone	40	3.5%
Topiramate	9	1.3%	Chlorpheniramine	32	2.8%
Chlorpheniramine	6	0.9%	Doxylamine	32	2.8%
Lamotrigine	6	0.9%	Nortriptyline	22	1.9%
Phenytoin	5	0.7%	Amitriptyline	20	1.7%

DUID, Non-Controlled, Florida

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