

### K22 Driving Under the Influence of Drugs (DUID) in Different Countries: An Overview

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**Learning Overview:** After attending this presentation, attendees will understand different countries' policies regarding DUID and how they differentiate from Driving Under the Influence of Alcohol (DUIA).

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by showing how different nations/states are fighting the issue of DUID and the importance of synergistic cooperation between police, medical professionals, and forensic toxicologists.

Driving a motor vehicle is not easy. It is a skills-required task and drivers should be aware of their own safety and that of others. Hence, taking substances, such as alcohol or other drugs (also prescribed), before driving is a bad idea. The effects of alcohol on performance and behavior and the clinical tests for drunkenness are widely documented. Indeed, blood alcohol concentration—set as 0.5g/L—is a value internationally recognized by most countries. Studies show that a person's demeanor is altered at this concentration.<sup>1</sup> On the other hand, the situation for drugs is deeply different. While alcohol is just one molecule, drugs represent a class of molecules, totally different from each other (depressants, stimulants, hallucinogens, etc.). Moreover, there are different responses, inter-individuals and intra-individuals, to drugs. Some "drug naïve" subjects can experience dissimilar feelings from drug addicts.<sup>4</sup> Therefore, in this complicated scenario, an arbitrary drug level cannot be set or, at least, driving impairment cannot be defined only on "a laboratory outcome." There are two main approaches to legislating against drivers who drive while under the influence of drugs. The first is an impairment standard, under which a driver is guilty of the crime of Driving Under the Influence (DUI) if it can be shown that their driving ability is affected by drug or alcohol use. This is the so-called "affected by" approach and it is the most straightforward and relates the person's behavior to the crime of impaired driving. Evidence to support these charges may include appearance, speech, divided attention and balance, etc. The second approach to prosecuting impaired driving behavior is the so-called "per se approach." Under this construction, the government, based on its obligation to preserve public health and welfare and in consideration of the risks to its citizens of sharing the roadways with impaired drivers, has moved to outlaw driving after having consumed a drug with potentially intoxicating properties. This approach is called per se if a quantitative standard in blood, oral fluid, or urine is set above which driving is prohibited.<sup>2</sup> Today, countries/states are adopting different policies. In Europe, only a few nations (Belgium, Czech Republic, Republic of Ireland, Luxembourg, Norway, United Kingdom) out of 26 set limit values for some drugs (THC, amphetamines, cocaine, morphine).<sup>5</sup> By contrast, in the United States, Nevada and Ohio show a straightforward law, where limits were set also for drugs' metabolites.<sup>3</sup> Other countries (Australia and Russia) have a "zero tolerance;" they did put the limits at the cut-off levels. Italy, as other countries (Lithuania, Malta, etc.), has established no drug limits. In these cases, the offended impairment level is defined when the drug is detected in the blood. Furthermore, it is important for countries/states with no per se law (Alabama, New Jersey, Argentina, etc.) to train police officers to recognize impaired drivers throughout several tests such as a walk-and-turn test, a one-legged-stand, and the assessment of Horizontal Gaze Nystagmus (HGN).

In conclusion, it is significant to understand how drugs affect individual components of the task of driving and how they can affect their overall performance. To consider the extent of the impairment, an overall consideration about behavioral domain analysis, epidemiological monitoring, and empirical toxicological assessment should be performed. To achieve this, a synergistic cooperation among police officers, medical professionals, and forensic toxicologists is extremely important.

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#### Forensic Science, Driving Impairment, Drugs