Decoding the DRE Program: A Judge's Primer

Judge Kate Huffman American Bar Association National Judicial Fellow August 1, 2024



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Learning Objectives

- Demonstrate an understanding of the impact of drug use on the tasks critical to driving
- Outline the key components of the twelve-step DRE protocol
- Evaluate the admissibility of DRE testimony in impaired driving cases





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Why is it important?

Driving is "a complex activity requiring alertness, divided yet wide-ranging attention, concentration, eye-hand-foot coordination, and the ability to process visual, auditory, and kinesthetic information quickly."

P. Larkin, *Medical or Recreational Marijuana and Drugged Driving*, 52 Am.
Cr. L. Rev. 454 (2015)

The Big Four:

- 1. Judgment
- 2. Vision and visual perception
- 3. Muscular coordination
- 4. Reaction time

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Impaired Driving By the Numbers

- In 2022, there were 13,524 alcohol-related traffic fatalities in the U.S, representing 32% of all traffic deaths
- 32 people in the U.S. die every day in impaired-driving crashes one person every 45 minutes
- In 2019, 1,024,508 drivers arrested for DUI, with 121m impaired driving episodes
- An impaired driver gets behind the wheel and drives between 300 and 1,200 times before first arrest

The good news and the bad news

2/3 of first-time impaired drivers self-correct and do not recidivate

40% of fatally injured impaired drivers have a history of repeat DUI offenses

Less than 5% of drivers account for about 80% of the impaired driving episodes

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Views on Substance Use and Driving

- Drivers perceive the use of marijuana and alcohol differently
- 95% of survey respondents believe it is dangerous to drink and drive
- 69% of the same respondents believe it is dangerous to use marijuana and drive

Risk of Motor Vehicle Collisions

- Alcohol use alone consistently associated with elevated motor vehicle collision risk
- Cannabis use alone (at all levels) not consistently associated with elevated motor vehicle collision risk
- Alcohol and cannabis in combination consistently associated with elevated motor vehicle collision risk

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Drugged Driving Defined

Driving after the use of impairing substances other than alcohol or combined with alcohol

- Illegal drugs
- Prescription drugs
- · Over-the-counter medications
- Chemical consumption
- · Combination of any of the above and/or with alcohol

Question

How many people in the U.S. drive under the influence of drugs annually?

- 1. 10 million
- 2. 25 million
- 3. 62 million
- 4. 100 million

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Struggling with Drug Data

- Labs may not test for drugs if driver has reached an illegal/per se blood alcohol level because there is already enough evidence to support an impaired driving charge – stop limit testing
- Many drivers who cause crashes have both drugs and alcohol/more than one drug in their system, making it difficult to know which substance had the greater effect
- Data is reported inconsistently and difficult to correlate
- Some drugs stay in the system for days or weeks after use, making it difficult to determine when the drug was used, and how and if it impaired driving

Why is this difficult?

- Varied substances with different means of impairing the driver
- The lack of information about many potentially impairing drugs
- Individual differences, sensitivity and tolerance
- Myriad of ways various substances interact
- Study limitations/data incomplete
- Testing inadequacies/failure to test for all drugs

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Driving Under the Influence of Drugs (DUID)

- DUID offenders 5x more likely to reoffend as compared to DUI offenders
- DUID where a scheduled prescription was the impairing drug reoffend much less frequently (about 17%) compared to those consuming illicit drugs (68%)

Drug Impaired Driving

- Recreational cannabis use associated with increased motor vehicle crashes
- Chronic, heavy recreational cannabis use associated with worse driving performance
- In 2022, daily or near daily marijuana use exceeded daily alcohol use

- 137.4m current alcohol users
- 61m past month binge drinkers (44.5%)
- 61.9m past month marijuana users (22%)
- 8.9m opioid misusers in the past year
- 48.7m SUD in the past year
 - 29.5m AUD
 - 27.2m DUD
 - 8.0m both

What we know



2022 NTSB Report

Analyzed toxicology data from four labs including drivers arrested for DUID and fatally injured drivers:

Between 71% and 99% of drivers tested positive for one or more potentially impairing drugs

Approximately 50% of the drivers had more than one drug category present on toxicology screen

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that it's just alcohol

Table 3. Percentage of drivers who reported driving within 2 hours of using various potentially driver impairing medications within the past 30 days, United States, July-August 2021.

Age Group	Antihistamines and/or cough medicines	Antidepressants	Rx pain medications	Muscle relaxants	Sleep aids, barbiturates, or benzodiazepines	Amphetamines	≥1 of these medications	>2 of these medications*	≥3 of these medications*
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
All drivers	38.9	60.8	32.6	21.6	9.2	73.1	45.0	63.3	70.8
16-18	32.8	55.7	29.3	27.6	4.7	56.4	40.9	56.6	46.1
19-24	31.8	52.8	20.1	0.0	0.0	1.0	39.3	54.1	83.6
25-39	36.5	74.7	28.4	20.3	13.8	80.7	44.8	69.6	70.0
40-64	43.1	60.9	40.5	22.7	8.4	61.9	48.6	64.2	72.7
≥65	34.4	49.3	26.6	22.8	10.9	74.3	38.9	58.2	64.6

Base: U.S. residents ages 16+ with a driver's license who reported driving and taking the corresponding medicine (or number of medicines) in past 30 days, weighted to reflect U.S. population. Red numbers indicate significantly different across age groups based on unadjusted statistical analysis (corrected Pearson F test). Blue shading indicates small sample size (<100).
"Not necessarily at the same time.

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Impaired Drivers: Not the Usual Suspects

Impaired Drivers are Different

- Tend to score lower on traditional risk assessments
- Often lack an extensive criminal history
- High degree of denial alcohol consumption is legal, highly prevalent and socially encouraged
- Tend to be employed and may have a stable social network
- Do not view themselves as criminals
- But, repeatedly engage in behavior that is dangerous

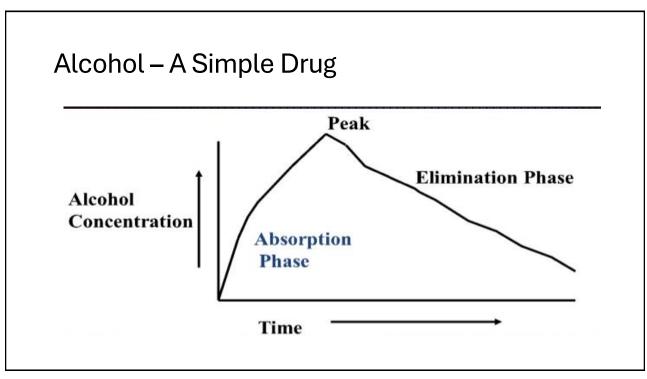
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Study of repeat impaired drivers found 45% have a lifetime major mental health disorder

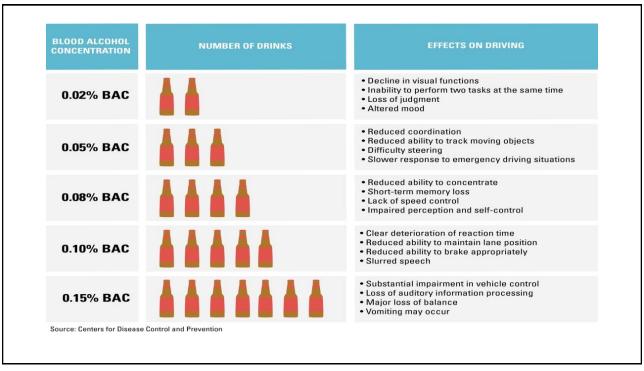
Co-Occurring Disorders

Mental health issues linked to impaired driving include:

Depression, bipolar disorder, conduct disorder, anxiety, antisocial personality, PTSD







THC structure similar to the brain chemical anadamide

THC and the Brain

The similar structure allows the drug to be recognized by and activate cannabinoid receptors and to alter normal brain communication

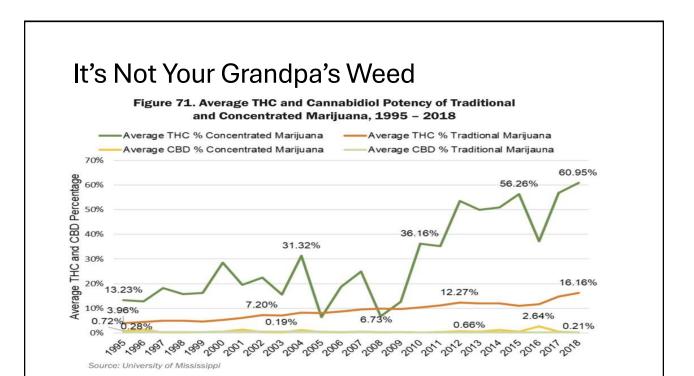
Cannabinoid receptors abundant in the parts of the brain that regulate movement, coordination, learning and memory, higher cognitive functions such as judgment, and pleasure regions

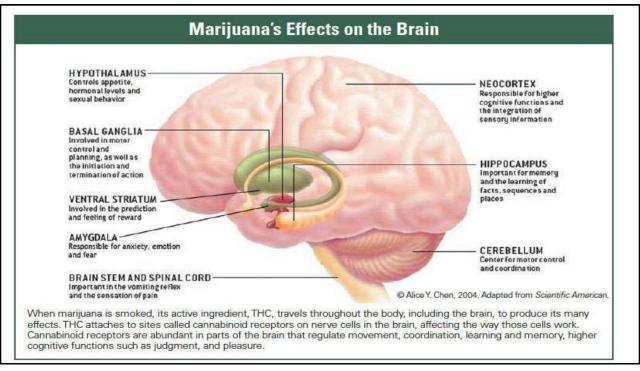
Activates the brain's reward system – which releases dopamine at levels higher than typically found, prompting a repetition of the behavior

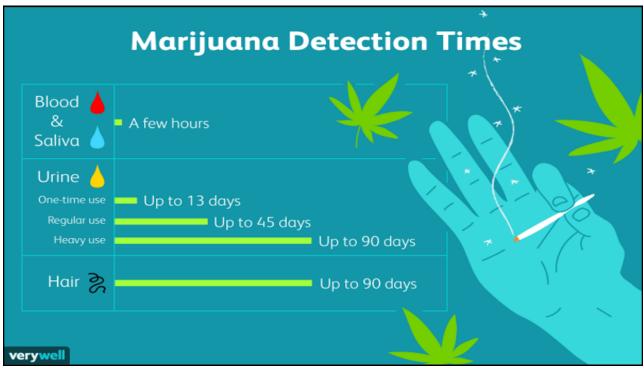
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Cannabis

- Affect varies by product, dose, route of administration, experience of user
- Short term effects problems with memory and learning, distorted perception, difficulty in thinking and problem-solving and loss of coordination, difficulty sustaining and shifting attention and in registering, processing and using information
- Driving concerns distortion of distance, and vigilance, loss of coordination in divided attention tasks







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What makes cannabis and alcohol use different?

- Alcohol eliminated at a fairly constant rate of 0.01%-0.03% per hour
- Peak effects of alcohol use occur at peak blood concentration
- THC concentration cannot be correlated to specific impairment
- THC dissolves in fatty tissue, which acts like a sponge to reduce measurable amounts in blood, saliva or breath
- THC rapidly moves from the blood stream to the brain, yet has a long half-life to metabolize
- As a result, impairment does not uniformly rise and fall based upon how much THC is present in bodily fluids
- Peak effects of cannabis occur after peak blood concentration

No BAC for THC



Diphenhydramine (Benadryl, Unisom, Dramamine)

- · Can act as both a stimulate and a depressant
- Diminishes cognitive and psychomotor performance, decreased alertness, decreased reaction time, impaired concentration, time estimation, tracking and attention, ability to maintain a constant distance and lane keeping
- A single 50 mg dose has been shown to cause significant impairment in measuring vehicle following, constant speed and lateral position – effects correspond to a BAC of 0.1



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Dextromethorphan

- Synthetic analog of codeine
- Effects of recreational doses include dissociation of mind from body, creating a dream-like experience, disorientation, confusion, altered time perception, visual and auditory hallucinations
- Little to no effect on driving at therapeutic levels, but high doses result in significant impairment – marked drowsiness, impairment of mental and/or physical abilities required to perform driving tasks

Ketamine

- Decreased awareness of general environment, dream-like state, feelings of invulnerability, increased distractabilility, disorientation, intense hallucinations, impaired thought processes, out-of-body experiences, changes in perception about body, surroundings, time and sounds
- Increased reaction time, distorted perception of space, blurred vision
- Manufacturer suggests no driving within 24 hours of ingestion

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Diazepam (Valium)

- At low doses, a moderate tranquilizer, causing sleepiness, drowsiness, confusion
- At high doses, results in excitement, disinhibition, severe sedation, and effects on respiration
- May produce a state of intoxication similar to that of alcohol, including slurred speech, disorientation
- Results in significant driving impairment decreased divided attention, increase in lane travel, slowed reaction time, increased braking time, decreased eye-hand coordination, and impairment of tracking and vigilance

Harmful Intoxicants

- · Common household items
- Purchased legally with little to no regulation
- No age restriction on purchase
- Inexpensive
- Produce a high
- · Impair motor function
- · Difficult to detect
- May result in an impaired driving conviction

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The Process of an Impaired Driving Stop

- Officer observes inappropriate driving behavior
- Officer stops vehicle, engages driver in conversation, forms suspicion that the driver is impaired
- Standardized field sobriety tests
- Request for BAC sample
- Only when BAC level incompatible with observed impairment will the officer consider drugs other than alcohol
- Typically, if the BAC is at or above the legal limit, the investigation stops

Standardized Field Sobriety Tests

1981 - NHTSA develops standardized field sobriety tests (SFST)

Divided attention tests:

- √ Horizontal gaze nystagmus
- ✓ Walk-and-turn
- ✓ One-leg stand

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SFST

Listen to instructions

Remember instructions

Follow instructions

Maintain attention to the task at hand

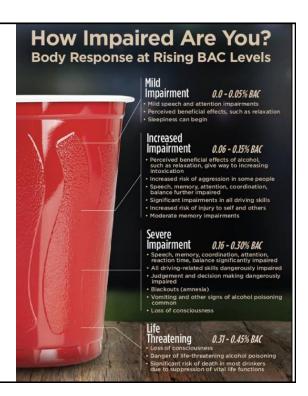
Physically perform the task

Perform more than one activity at once

Not sensitive to alcohol only

Divided attention tests, not driving tests

What if the BAC is inconsistent with the level of impairment?



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Drug Recognition Experts

Police officers trained to recognize impairment in drivers under the influence of drugs other than, or in addition to alcohol

Began in Los Angeles in the early 1970s

Administered by NHTSA and the International Association of Chiefs of Police

Now a nationally standardized DRE protocol

Identifies seven different categories of drugs and the physical symptoms associated with each

Important Terms

Drug Recognition Expert – a law enforcement officer certified by the IACP

Drug Influence Evaluation – a formal standardized assessment of an impaired driving suspect performed by a DRE

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Drug Influence Evaluation

- Based upon the principle that a given drug category will produce physiological responses in the body which can be observed and measured
- Not a test
- A method of collecting and interpreting evidence

CNS depressants

CNS stimulants

Hallucinogens

Dissociative anesthetics

Narcotic analgesics

Inhalants

Cannabis

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Drug Categories

DRE Selection and Training

- √ Employed as a paid law enforcement officer
- ✓ Experience in preparing comprehensive reports and in providing detailed court testimony
- √ Completed training in and develop proficiency in SFST pre-DRE candidate acceptance (ARIDE required in NV)
- √ Phase I 16 hour "pre-school"
- ✓ Phase II 56 hour classroom program; examination
- √ Phase III field training, satisfactorily complete a minimum of 12 DIE, with conclusions supported by forensic testing; examination and recommendation by two DREs

The DRE Protocol

A standardized and systematic method of examining a DUID suspect to determine:

- 1. Whether or not the suspect is impaired; if so,
- 2. Whether the impairment relates to drugs or a medical condition; and if drugs
- 3. What category or combination of categories of drugs are the likely cause of the impairment

Based on a complete set of observable signs and symptoms that are known to be reliable indicators of drug impairment

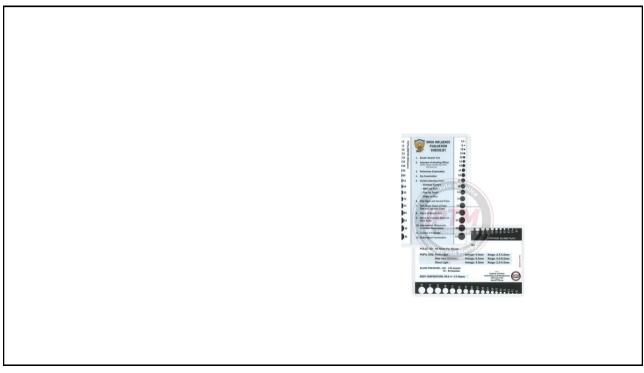
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Standardized DRE 12-Step Protocol

- 1. Breath Test
- 2. Interview of Arresting Officer
- 3. Preliminary Exam First Pulse
- 4. Eye Examinations
- 5. Psychophysical Tests
- 6. Vital Signs

Second Pulse

- 7. Dark Room Examination
 - Room Light
 - Near Total Darkness
 - Direct Light
- 8. Muscle Tone
- 9. Injection Sites
 Third Pulse
- 10. Interrogation
- 11. Opinion of DRE
- 12. Toxicology Examination





The DRE Matrix

	CNS Depressents	CNS Stimulants	Hallucinogens	Dissociative Anesthetics	Narcotic Analgesics	Inhalants	Cannabi
HGN	Present	None	None	Present	None	Present	None
Vertical Gaze Nystagmus	Present (High Dose)	None	None	Present	None	Present (High Dose)	None
Lack of Convergence	Present	None	None	Present	None	Present	Present
Pupil Size	Normal (1)	Dilated	Dilated	Normal	Constricted	Normal (4)	Dilated (
Reaction to Light	Slow	Slow	Normal (3)	Normal	Little or None Visible	Slow	Normal
Pulse Rate	Down (2)	Up	Up	Up	Down	Up	Up
Blood Pressure	Down	Up	Up	Up	Down	Up/Down (5)	Up
Body Temperature	Normal	Up	Up	Up	Down	Up/Down/ Normal	Normal
Muscle Tone	Placetd	Rigid	Rigid	Rigid	Maccid	Normal or Flaccid	Normal
General Indicators	Disor lented ton Droppy wellful Droppy wellful Droppy wellful Droppy well Slows, sloggish reactions Tride, shurred Unscore dinnsted Unsteady week	Ansiety Body tremors Dry mouth Congressed reflexes Exelited Exelited Exelited Exelited Exelited Increased af ertness Insornals Increased af ertness Insornals Irritability Redness to the nesal Restlessness Restlessness Talisative	Body tremors Dased appresence Difficulty with Flashbacks Heallucinetions Memory Yoss Perspiring Poor perception of time and distance time	Blank stere Constitution Chemistral oder (PCP) Chemistral oder (PCP) Chemistral oder (PCP) Chemistral oder (PCP) Chemistral oder Hallucination Incomplete verbal responses Increased pain "Moon Walking" Non-communicative Perspiring (PCP) Sensory distortions Slow, slurred speech Slowed rategories Warm to touch (PCP)	Depressed references of the process	Bloodshot eyes Confusion Disor lented Disor lented Disor lented Disor lented Disor lented Lask of muscle control Con	Altered time/dista perception Alteration in thought formation 8 ody tremora Bloodshot Drowsiness Eyelid tremor Eyelid tremor Eyelid tremor Euphoria impairad met increased apu Lack of concentrat Mood sharge Odor of Mary Rebound Olle Relaxed inhib Sedation
Duration of Effects	Ultra-short A few minutes Short: Up to 5 hours Intermediate: 6-8 hours Long: 8-14 hours	Cocarne: 5-90 minutes Methamphetamine: Up to 12 hours	Duration varies widely from one halludinogen to another: LSD: 10-12 hours Pallocybin: 2-3 hours	PCP Onset: 1-5 minutes Peak Effects: 15-30 minutes Exhibits effects up to 4-6 hours OXM: Onset 15-30 min. Effects 3-6 hours	Meron: 4-6 hours Methadone: Up to 24 hours Others: Vary	6-di hours for most volatile solvents Anesthetic gases and aerosols – very short duration	2-3 hours — ex and feel eff (Impairment r lest up to 2 hours, with awareness effects)
Usual Methods of Administration	Injected (occasionally) Insuffiction Oral	Insufflation Injected Oral Smoked	Insufflation Oral Smoked Transdermal	Injected Insuffiction Oral Smoked Transdermal	Injected Insufflation Oral Smoked Transdermal	Inhelation	Oral Smoked Transdermal
Overdose Signs	Clammy skin Coma Rapid, weak pulse Shallow breathing	Agitation Hallucinations	Intense bad "trip" Hyperthermia Convulsions	Deep come Seizures and convulsions	Cold, clammy skin Coma Convulsions Slow, shallow breathing	Cardiac arrhythmia Possible psychosis Respiration ceases Severe nauses/somiting	Excessive von Fatigue Acute anxiety attacks

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Limitations

- A conclusion is never based on any one element of the evaluation, but instead on the totality of facts that emerge
- Err in favor of the subject
- · Rules out medical conditions
- Records all observations, which are subject to peer review
- Observations confirmed by urine, blood or oral fluids
- Subject to cross-examination

The Texas Experience

- Two years experience as a Texas peace officer employed by a state, county or municipal law enforcement agency
- Completed NHTSA 24 hour SFST course
- Possess a reasonable background in impaired driving enforcement
- Possess a documented ability to complete thorough and accurate reports
- Recommendation of two current DREs
- Training

Three phases

DRE pre-school and DRE school (9 days)

DRE field certification

DRE examination

Recertification every two years



- 261,194 square miles of land in Texas
- 2,332 square miles per DRE per shift



State v. Olenowski

Special Master appointed to consider and decide whether DRE evidence has achieved general acceptance within the relevant scientific community and therefore satisfied the reliability standard of Evid. R. 702.

42 days of testimony 16 witnesses 300+ page final report

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The Special Master's Report

- The seven drug categories in the DRE matrix are consistent with comparable matrices used and generally accepted in the medical field
- 2. DREs can be and are adequately trained to competently perform all of the scientifically based steps in the DRE protocol and to reliably observe and report on the results in a manner that is comparable to the training and performance of individuals in the medical field, such as clinical technicians and EMTs

The Olenowski Legacy

Specially trained police officers who serve as DREs can be, and are adequately trained in those aspects of the protocol that are scientifically based; laypersons – not just police officers – are routinely trained to reliably make assessments and perform medical tasks and are thus enabled to reliably apply the protocol

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Admissibility of DRE Testimony

The protocol is scientifically reliable; a DRE may testify as an expert witness regarding the administration and results of the protocol as applied to a particular defendant. While the protocol as a whole is not scientific, there is a sufficient scientific foundation for the protocol to be admissible under *Daubert*; many of the steps are non-scientific, such as the officer's observations and interview, but are reliable.

New Mexico v. Aleman, 145 N.M. 79 (2008)

"Nothing contained in the protocol is a new invention," and the protocol is "rather a compilation of tried and true procedures utilized by medical science and the law enforcement community in similar contexts for many years."

People v. Quinn, 580 N.Y.S.3d 818 (1991)

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DRE officers "may not predict the specific level of drugs present in a suspect," but may, when properly qualified, "express an opinion that a suspect's behavior and physical attributes are or are not consistent with the behavioral and physical signs associated with certain categories of drugs."

State v. Baity, 991 P.2d 1151 (Wash. 2000)

Admissibility in Texas

- The drug-recognition field is an experience- and training-based field
- Because this analysis is rooted in experience and training, as opposed to the rigors
 of the scientific method, the less-stringent soft-science requirements of reliability is
 applicable to drug-recognition-expert testimony

Sanders v. Texas (2020)(Unpublished)

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Richter v. Texas, 482 S.W. 3d 388 (2015)

- The field of drug recognition is noted as a recognized field
- A trial court has great discretion in determining whether a witness possesses sufficient qualification to assist the jury as an expert on a specific topic in a particular case
- The experience of a DRE goes to the weight, but not the admissibility of the testimony

Contact Information

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