

ACTIVITY EVALUATION FORM FOR CALIFORNIA MCLE

Please complete and return to Provider (Please Print)

Provider Name: Ventura County District Attorney's Office Provider Number: 1130

Title of Activity: Crime Lab Forensics

Date(s) of Activity: October 10, 2016

Time of Activity: 10:00 - noon & 1:30 - 3:30

Location of Activity: HOA: Lower Plaza Assembly Room Ventura, CA

Please indicate your evaluation of this course by completing the table below

Question	Yes	No	Comments
Did this program meet your educational objectives?	<input type="checkbox"/>	<input type="checkbox"/>	
Were you provided with substantive written materials?	<input type="checkbox"/>	<input type="checkbox"/>	
Did the course update or keep you informed of your legal responsibilities?	<input type="checkbox"/>	<input type="checkbox"/>	
Did the activity contain significant professional content?	<input type="checkbox"/>	<input type="checkbox"/>	
Was the environment suitable for learning (e.g., temperature, noise, lighting, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	

Please rate the instructor(s) of the course below

Instructor's Name and Subject Taught	On a scale of 1 to 5, with 1 being Poor and 5 being Excellent, please rate the items below	Rate 1 – 5
Regina Davidson, Controlled Substances	Overall Teaching Effectiveness	—
	Knowledge of Subject Matter	—

Instructor's Name and Subject Taught	On a scale of 1 to 5, with 1 being Poor and 5 being Excellent, please rate the items below	Rate 1 – 5
Keith Nakagawa, Toxicology	Overall Teaching Effectiveness	—
	Knowledge of Subject Matter	—

Instructor's Name and Subject Taught	On a scale of 1 to 5, with 1 being Poor and 5 being Excellent, please rate the items below	Rate 1 – 5
Arsenio Ricafrente, Blood Alcohol	Overall Teaching Effectiveness	—
	Knowledge of Subject Matter	—

Introduction to Alcohol, Controlled Substance & Toxicology



Michael Parigian, Assistant Forensic Laboratory Manager / Forensic Supervisor

Agenda

- Organizational Structure
- Accreditation
- Subpoenas & Discoveries
- CLMS
- Court Testimony-General
- ERFA
- Alcohol
 - Blood, UM, Breath, Anticipated Defenses
- Drugs
 - Analysis, Drug Schedules, Counterfeit Pills, NIK Kits
- Toxicology
 - Analysis, Limitations, Influence (DAR) vs. Impairment (DRE)
- Questions (ask anytime)



Organizational Structure

- Office of the Sheriff (SO)
 - Special Services
- Forensic Services Bureau (FSB)
 - Drugs
 - Alcohol
 - Toxicology
 - Forensic Biology (DNA)
 - Comparative Evidence (Firearms)
 - Latent Prints
 - Crime Scenes
 - Property/Evidence

Forensics Lab

Staff

- Bureau Manager
- Assistant Forensic Laboratory Managers
- Forensic Supervisors
- Forensic Scientists
- Support Staff
 - Forensic Laboratory Technicians
 - Clerical



Accreditation

ACCREDITED

- As of May 2003 our lab has been an ASCLD/LAB accredited laboratory
 - American Society of Crime Lab Directors Laboratory Accreditation Board
- In June 2008 became accredited to International Program (ISO)
- The accreditation program ensures that participating laboratories provide the agencies submitting evidence with accurate results

Scope of Accreditation



Discoveries

- All criminal discovery requests are routed through the DA's Office
 - DA's Office is considered the gatekeeper of a case.
 - Decide what charges will be filed and what evidence is probative regarding those charges
 - Decide the scope of the request
- You have access to basic breath discoveries
- Need to give lab 5-10 days to complete

Subpoenas

SUBPOENA

- Preliminary hearings: subpoenas accepted for all whether the Forensic Scientist is available that day or not
 - stamped Business Record if not available
- Trials: DA's office is notified if/when Forensic Scientist will be out of the office
 - If your case trails to a day when the Forensic Scientist is on scheduled time off we will not be available
 - Lab will not retest when the Forensic Scientist is unavailable
 - Another Forensic Scientist may testify as a Business Record

CLMS: Reports & Discoveries

- DA's Office has access to CLMS (Crime Lab Management System)
- All reports are available via CLMS
 - Lab does not fax or email reports
- Most discoveries are available via CLMS
 - Exceptions: large data files (raw data, images, policy and procedures)
 - Requests need to be made for Discoveries by emailing a completed District Attorney Additional Request Form (DAARF)

Discoveries - DAARF



- Select which section request is for
- Form is used for:
 - Discoveries
 - Additional work
 - Case status



Expedited Requests



- Expedited requests for drug and alcohol analysis **MAY** be accommodated within 4-6 business days
- Due to the nature of tox analysis, we cannot accommodate any expedited requests
- Expedited requests for discoveries **MAY** be accommodated within 4-6 business days
- Check your file **BEFORE** you go to court and make sure you have reports and discovery materials

Testimony

- Prelims
 - Analyst can do IIS
- Trials
 - Call ahead to check availability (remember multiple subpoenas)
 - Call ahead to discuss case & avoid surprises
 - Impairment opinions
 - Know what can and cannot testified to



Testimony



- **Analysis**
 - Done by Forensic Scientist who signed report
 - If Forensic Scientist is absent, business record depending on the availability of other Forensic Scientists
- **Impairment**
 - Done by Forensic Scientist who signed report IF qualified.
 - If Forensic Scientist is not qualified, by supervisor assignment.
 - Breath Cases-by rotation (cases are tentatively assigned to a Scientist for an opinion)

Testimony



- Call the main number (805-654-2370) to speak to a Scientist or prep a case for court
- **Don't** text or call personal cell phones to arrange court appearances
- You may send an email to: Crime.Lab@ventura.org (include Lab Number and Forensic Scientist name)

Testimony

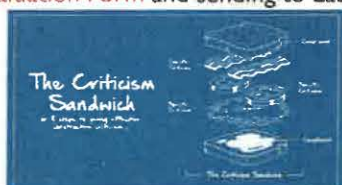
- Staff will **not** come out when the jury is still being picked
- Staff needs 30 min to 45 min time to get ready for court (have them on phone standby)
- The bailiff or another DA can call the lab
- When staff are waiting in court they are not doing casework or discoveries and are not available for consults
- Wait time should be kept to less than **45 min**



Testimony



- We appreciate constructive criticism
- Helpful critique/feedback is always welcome by completing **Courtroom Evaluation Form** and sending to Lab



Electronic Request for Analysis (ERFA)

- Officer fills out ERFA
- ERFA will list:
 - Subjects
 - Offenses
 - Items being submitted
 - Types of analysis requested

Electronic Request for Analysis (ERFA)

- The lab will **only** perform analyses that has been requested on ERFA
 - **Not** per the offenses listed
- Requested analysis is Alcohol Content
 - Only alcohol analysis will be performed
- Requested analysis is Toxicology
 - Only tox analysis will be performed



Electronic Request for Analysis (ERFA) - Exceptions

- Tox analysis only on I 1550 cases
 - No alcohol analysis
- Requests for both Alcohol Content and Toxicology
 - Alcohol analysis will be performed first:
 - If less than 0.08%, Tox will be performed
 - If 0.08% or higher, Tox will not be performed



Alcohol



Alcohol Topics

- Title 17 & the Law
- Blood
 - Instrument - Heated Headspace GC
 - UM
 - Accredited for Blood
- Breath Program
 - Instrument - Alcosensor V-XL
 - Accredited for Breath
- Court & Anticipated Defenses



Title 17

- Code of regulations that govern forensic alcohol analysis (blood and breath)
- The vehicle code and state/assembly bills supersede Title 17
- Changes coming soon....



CDPH vs. State Bill 1623

(changes in the law)

- Prior to Jan. 1, 2005 ALL labs that performed forensic alcohol analysis were required to be licensed by CA Dept. of Public Health (CDPH) per Title 17
- After Jan. 1, 2005 (per SB 1623) a license is no longer a requirement. Currently we are NOT licensed by CDPH



CDPH vs. Assembly Bill 2425

(changes in the law)

- AB 2425 signed into law in 2014
- Gives ASCLD/LAB accredited labs the ability to replace direct oxidation with a "primary standard"
- Ceased 2 digit truncation (e.g. reporting ethanol to 3 decimals for blood alcohol results) **Note:** breath alcohol results are still 2 digit truncation
- FSB has adopted the changes



Blood & Urine Alcohol Analysis

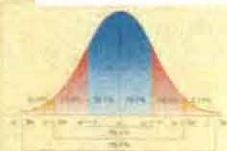
- Instrument: **Semi-Automated Heated Headspace Gas Chromatograph**
 - The GC heats (volatilizes) the ethanol & the internal standard in the blood & a needle samples from the headspace of the vial
 - The gaseous material is then injected into the gas chromatograph & is separated & detected.
- A report is generated by the computer & ethanol concentrations are determined by relative peak area.

Traceability & Uncertainty

- The lab is reporting the uncertainty of measurement for blood alcohol results
- **Traceability**: unbroken chain of comparisons using acceptable and documented methods that should end in the "realization" of SI Units with each comparison having stated uncertainty
- **Measurement Uncertainty** is a "link" in the traceability "chain", it is the value that characterizes the possible dispersion around a measured value

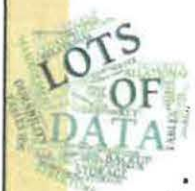


Uncertainty



- Uncertainty of measurement is the Lab's **BEST ESTIMATE** based on uncertainty principles and statistical analysis
- It is not an absolute.
 - We report to a 95% confidence level
 - It is a "moving target" and can change over time
 - It is re-evaluated periodically
- Uncertainty of Blood result is:
 - approximately $\pm 6\%$ of result (above 0.08%) &
 - approximately $\pm 0.004\%$ (W/V) of result (below 0.08%)

Breath Alcohol



- Instrument: **Alcosensor V-XL**
- Records kept by lab:
 - Calibration Report - checks done on a weekly basis with a solution or gas of known concentration
 - Maintenance Report - maintenance performed will be reflected on the maintenance log
 - Subject Breath Test Report - the subject breath tests performed on the instrument
 - Operators Training - officer's certification that they have passed our course and have been certified as an Operator
- No records for the Agency's portable presumptive alcohol screening (PAS) devices

Alcosensor V-XL

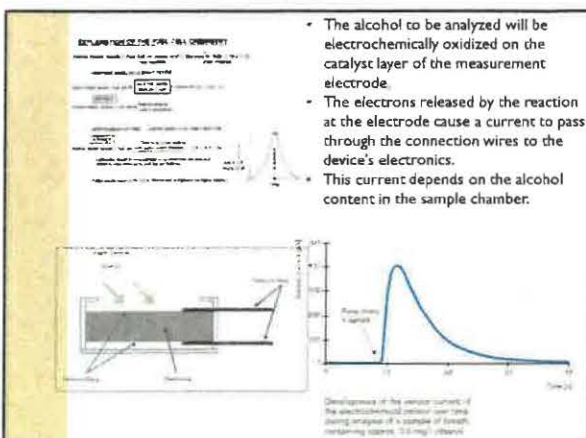


Alcosensor V-XL



- **Electrochemical Fuel Cell (EC)**
The cell is lined with a substance that produces a chemical reaction in the presence of alcohol. The reaction produces an electrical current that is converted into a breath alcohol reading
- Accuracy of Instrument is ± 0.010 per Title 17
 - Uncertainty for ASV-XL
For concentrations ≥ 0.110 g/210L = $\pm 7\%$
For concentrations < 0.110 g/210L = ± 0.008 g/210L





Breath Strip

- Serial Number
- Subject Information
- Operator's Identity
- 15 minute observation
- Test results

- Allowed up to three chances to get two good breath tests
- There must be 0.02% agreement between at least two breath tests

Court Testimony

- Important information for Criminalists to form an opinion about impairment due to alcohol:
 1. Chemical Test (Blood or Breath)
 2. Observed Driving Pattern (ie. weaving, crashing)
 3. Objective Signs and Symptoms (red watery eyes, slurred speech, odor of alcohol)
 4. Drinking History (Start & Stop Time)
 5. Standardized Field Sobriety Tests (SFST's)
 1. One Leg Stand (OLS)
 2. Walk and Turn (WAT)
 3. Horizontal Gaze Nystagmus (HGN)

Anticipated Defenses-Rising (blood or breath)



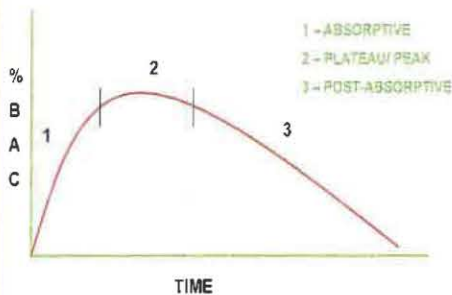
- **Bathtub Analogy:** Drinking is like filling a bathtub with no plug
 - If you pour water slowly, the water will drain out and the water level never rises
 - If you pour faster than the drain can eliminate the water level rises
 - After you stop pouring water the drain will continue to eliminate at the same rate until the water is gone

Anticipated Defenses-Rising (blood or breath)



- **Rising** -subject still absorbing alcohol when arrested. Delay in testing caused high level at time of test
 - Drinking history from officer may help
 - Less likely at high levels – due to the large amount required to drink in very short period of time
 - Time for full absorption & time to peak alcohol concentration are **not** the same
 - Social drinking – subject typically reaches 80% peak at end of drinking

Blood Alcohol Curve



Anticipated Defenses Tactics-Blood



- No Sodium Fluoride preservative in the sample (NaF)
 - Can have sample tested for NaF by an outside laboratory at the requestor's expense.
- The samples were switched during analysis by the analyst
 - Lab has protocols and safeguards
- The blood was not drawn in a medically approved manner
 - Declaration from person drawing blood
- Hemolysis elevated ethanol result
 - No peer reviewed literature to indicate hemolysis would increase alcohol result

Anticipated Defenses Tactics-Blood

- The instrument (gas chromatograph) was not functioning properly
 - Solutions of known concentration checked every run
- Storage and Chain of Custody issues
 - Official chain is electronic - tracks movement within the lab (including storage)



- Fermentation/Extra peaks in the baseline not integrated
 - Can compare baseline of blank or Whole blood control with sample. All chromatography baselines have noise; this is not indication of fermentation
 - Acetaldehyde is break-down product of ethanol. It would be expected in samples

Anticipated Defense Tactics - Breath Correlation Ratio

- Defendant had Partition Ratio different than the 2100:1 used by instrument
 - Results expressed as grams/100 ml of blood OR grams/210 L of breath
 - Breath Alcohol is accepted per se.
 - Scientifically Accepted Partition Ratio is 1900:1 to 2400:1
- DA should exclude conversion of breath alcohol to blood alcohol pre-trial
- Don't ask us to convert



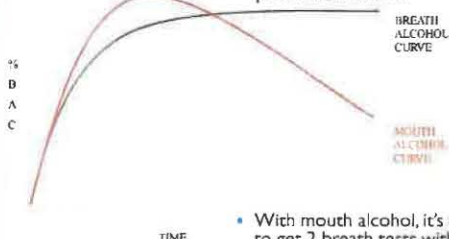
Anticipated Defense Tactics-Breath Interfering Substances

- No interference from other volatiles (Acetone, Toluene, Acetaldehyde etc)
- The Alcosensor V-XL is specific for Alcohol



Anticipated Defense Tactics-Breath Mouth Alcohol

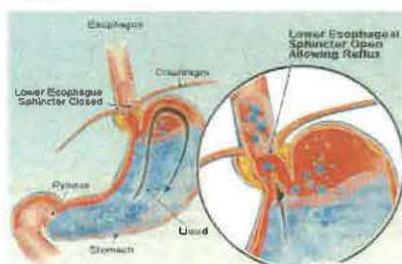
- Defense attributes alcohol result to alcohol from the mouth (not deep lung air)
- Title 17 requires 15 min waiting prior to breath test

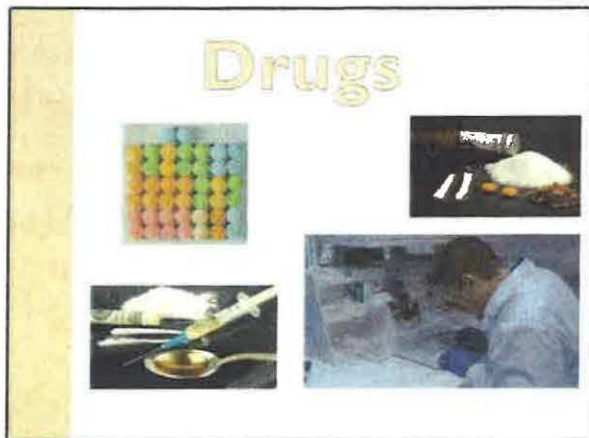


- With mouth alcohol, it's difficult to get 2 breath tests within 0.02% agreement especially at high levels.

Anticipated Defense Tactics - Breath GERD (Gastroesophageal Reflux Disease)

- Same safeguards for mouth alcohol work for GERD




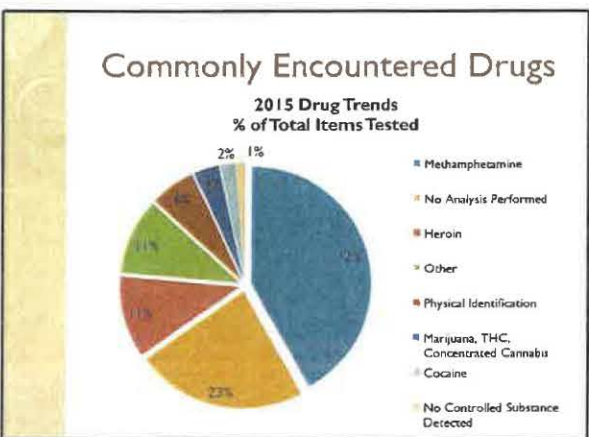


Controlled Substances (Drugs)

Topics

- Commonly encountered drugs
- Drug Schedules
- Analysis
 - Presumptive and Confirmatory Tests
 - Sample Selection vs Sampling
 - What we do (and don't) test for
- Counterfeit Pills





Drug Schedules



- **Schedule I**: no recognized medical use, high potential for abuse (Heroin, Cocaine Base, Marijuana)
- **Schedule II**: limited medical use, high potential for abuse (Methamphetamine, Cocaine Salt)
- **Schedule III**: medical use, some potential for abuse (Hydrocodone, anabolic steroids)
- **Schedule IV**: medical use, low potential for abuse (Xanax)
- **Schedule V**: medical use, low potential for abuse

Evidence Receipt and Handling

- Evidence is received in a sealed condition
- Electronic Request for Analysis (ERFA) must be completed and accepted prior to delivery
- Scientist picks up evidence from property
- Receipt from Agency is documented by Property



Drug Analysis



- **Presumptive Screening Tests** - indicate a class of drugs a sample may be positive for (not conclusive)
 - Color tests
 - Appearance and markings for licit pills / tablets
- **Confirmatory tests** - confirms the presence of a controlled substance (is conclusive)
 - Gas Chromatography Mass Spectrometry
 - Gas Chromatography NPD/FID
 - FTIR Spectrophotometer
 - Microscopic Exam (marijuana only)



Analysis - GC/MS

- Gas Chromatography (GC) is a **separation** technique that is used to separate components of a mixture
- Mass spectrometry (MS) is an analytical technique that ionizes chemical species and **sorts the ions** based on their mass to charge ratio (fragmentation pattern)
- The unknown substance is compared to a **known standard** and identified





Analysis - Sample Selection

- Similar items are grouped together
 - Type of material (brown powder v. white powder)
 - Type of packaging (zip-lock bag v. knotted baggy)
- Analyst will select the item(s) to analyze based on laboratory policy and information provided on ERFA



Sample Selection – Non Pharmaceutical

(Analysis done to meet offense code due to the laboratory's limited manpower)



- Possession cases:
 - Only 1 item weighed & analyzed
- Possession for Sales cases:
 - Only 1 drug type - 1 item weighed & analyzed
 - Multiple Schedule I & II drugs submitted
 - Up to 3 total items weighed and analyzed
 - Only 1 of each type of drug
- Analyst cannot conclude what the untested items are.

Sample Selection – Pharmaceutical



- No net weight, only count of tablets / pills
 - Illicit tablets treated as non-pharmaceutical
- Physical identification performed on tablets / pills
 - Using shape, color, & markings compared with reference information - **presumptive**
- If multiple tablets present, up to 5 physical identifications will be performed
- **Confirmation** only performed on request
 - **Confirm only controlled substances**

Sample Selection - Criteria



- Item selected will be random if feasible
- Analyst will select based on following:
 - Item with highest weight
 - Item with highest schedule, if similar weights
 - Item found on individual
- If additional items need to be analyzed due to **exigent circumstances**, a request needs to be sent and approved by supervisor with **reasonable justification**

Exceptions to the Rule

- Items less than 0.05g – no analysis performed except:
 - Juvenile cases
 - Sales cases
 - Possession in jail / custody facility



Analysis - Limitations



- We **can** perform hypergeometric sampling under limited circumstances
- We **don't** test for adulterants, cutters, or diluents (eg. Niacinamide, Caffeine, Lactose)
- We **don't** quantify controlled substances, results are reported qualitatively
 - Qualitative - What is it?
 - Quantitative - How pure is it?
- We **don't** confirm non-controlled prescription pills; they are presumptively identified by their appearance and markings

Counterfeit Pill Headlines



- Counterfeit Xanax containing opioids causes 3 overdoses - **San Francisco**
- Port of Entry agents seized more than 5,857 pills resembling prescription OxyContin. Pills actually laced with deadly fentanyl. **San Ysidro**
- 2 fatal overdoses blamed on fake Xanax - **Santa Cruz**
- Dangerous Counterfeit Medication Trend - **Los Angeles**
- Counterfeit "Xanax" pills contain fentanyl - **Illinois**
- Fake Xanax pill which is 50 times stronger than heroin kills nine - **Florida**

NIK Kits

- Presumptive tests officers use in the field
- NIK kits are color tests
- Indicate class of drugs – **Not conclusive**



Toxicology



Toxicology

- Analysis
 - Screening vs. Confirmation
 - Limitations of Analysis
- Metabolites
- DRE vs DAR
- Impairment vs Under the Influence



Analysis-Screening

- **Screening test** -Enzyme Immunoassay
 - Competitive binding assay
 - Indicates and/or Eliminates Drug or Class of Drugs
 - Rapidly differentiate the +/- cases
 - Less specific because of cross-reactivity
 - Alone inadequate for legal purposes-need confirmatory testing
 - "Cut-off" concentration



Analysis-Screening

- **Capability & Scope**
 - 3-panel (meth, coc, opi) for H&S offenses
 - 8-panel (meth, coc, opi, benzo, thc, oxy, cariso, zolp) for driving offenses and DFSA (Drug Facilitated Sexual Assault) cases
 - Additional drugs upon request - **ONLY if results are negative for the above listed drugs**
 - Only drugs covered by offense tested (e.g. no THC for 11550).



Analysis-Confirmation

- **Confirmatory Tests**-Gas Chromatography Mass Spectrometry and Liquid Chromatography Mass Spectrometry
 - Absolute proof of the drug presence
 - Qualitative and quantitative testing
 - More time consuming (sample preparation)
 - Require more experience and expertise
 - More expensive
 - Required for trial



Analysis Limitations Disclaimer

- Staffing, instrumentation and resources prevent FSB Toxicology Section from being able to confirm and quantitate all drugs requested and/or all drugs that screen positive.
- For more information on our capabilities-see FSB Handbook on Sheriff's Intranet.
- If additional analysis is needed, the agency or DA's Office must request the additional work (DAARF) for approval by the toxicology section supervisor.
 - Additional analysis should only be requested if prior results of analysis has not met the probative value.
 - Supervisor may decline additional testing, unless exigent circumstances exist - Samples may be forwarded to a private lab at the DA expense.

Little preview of Impairment

- Current science does not allow us to relate a blood concentration to a specific degree of effect for any drug other than alcohol



- The DRE opinion is based on the objective signs of impairment and is supported by the toxicology result

Analysis-Limitations



- Toxicology testing for DFSA (drug facilitated sexual assault) cases will be performed using urine samples. Blood will be analyzed only if the urine is positive.

Analysis-Limitations

- Some drugs are present at **very low levels**
 - If the drug is present at a level below the lab's reporting limit (will be reported as not detected)
- **Matrix issues** may prevent confirmation
- **Sample size** may prevent confirmation
 - If a number of drugs are requested but only a small amount of blood (or urine) is collected, the lab may not be able to test all the requested drugs
- Scope of testing

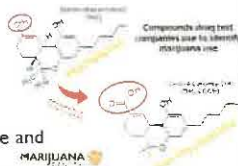
Analysis-Limitations

- **Drugs stored in fatty tissue**-not easy to detect in blood or urine (e.g. THC)
 - The drug may be absorbed into the fatty tissue and then leach out slowly over time.
 - If a blood test is not taken right away the drug may not be detected due to the fact it is "trapped" in fatty tissue
- Some drugs have **very short half-lives**
 - e.g. heroin & cocaine
- Some drugs are **unstable** over time and not amenable to analysis at a later date



Drug Metabolites

- Body breaks down the parent drug into metabolites.
- **Metabolites may be active**
 - Codeine - Morphine
 - Meth - Amphetamine
 - Diazepam - Nordiazepam
- **Metabolites may be inactive**
 - Cocaine - Benzoylecgonine
- May be a **combination** of active and inactive
 - THC - Carboxy-THC and Hydroxy THC
- Drug test available **may measure only inactive metabolite** (carboxy-THC urine)



DRE vs DAR



- The **DRE Program** (Drug Recognition Evaluator) is a **12 step process** designed to demonstrate drug **IMPAIRMENT**
 - 9 day course and field certification
- The **DAR Program** (Drug Abuse Recognition) is a **7 step process** that is designed to demonstrate a person is **UNDER THE INFLUENCE OF A DRUG**
 - 3 day course

DRE (Drug Recognition Evaluation)



- Developed by personnel from the Los Angeles Police Department in 1979.
- It is a process to:
 - Verify that the suspect is impaired and verify the suspect's **breath alcohol concentration is not consistent** with the degree of impairment.
 - Determine whether the **impairment is drug related or medically related**.
 - Use the diagnostic procedures to **determine the category (or combination) of drugs** that is the likely cause of impairment.

DRE-12 Step Process

1. Breath Test
2. Interview with arresting officer
3. Preliminary examination (1st pulse)
4. Eye examinations
5. Divided attention tests
6. Vital Signs (2nd pulse)
7. Dark room exam
8. Check muscle tone (3rd pulse)
9. Check for injection sites
10. Interrogation/suspect's statements
11. Opinion of the evaluator
12. **Toxicology examination**



DRE-Hallucinogens

- General Indicators:
 - Hallucinations
 - Dazed appearance
 - Disoriented, uncoordinated
 - Body tremors
 - Perspiring
 - Paranoia
 - Difficulty in speech
 - Piloerection (goose bumps)
 - Bruxism
 - Nausea
- Clinical Indicators:
 - No nystagmus
 - Pupils dilated
 - Pulse, blood pressure and body temperature elevated



DRE-Disassociative Anesthetics

- General Indicators:
 - Warm to the touch
 - Perspiring
 - Blank stare
 - Repetitive speech
 - Incomplete verbal responses
 - Confused
 - Muscle rigidity
 - Possibly violent and combative
- Clinical Indicators:
 - Horizontal gaze nystagmus with early onset
 - Vertical nystagmus
 - Lack of convergence
 - Pupils generally normal
 - Pulse, blood pressure and body temperature elevated



DRE-Narcotic Analgesics

- General Indicators:
 - "On the nod"
 - Droopy eyelids
 - Depressed reflexes
 - Dry mouth
 - Facial itching
 - Low, raspy speech
 - Possible puncture marks, "tracks"
- Clinical Indicators:
 - No nystagmus
 - Pupils constricted
 - Pulse, blood pressure, body temperature below normal



Mexican black tar

DRE-Inhalants

• General Indicators:

- Disorientation
- Slurred speech
- Residue of substance on face, hands, clothing
- Confusion
- Possible nausea



• Clinical Indicators

- Horizontal gaze nystagmus
- Vertical nystagmus may be present
- Pupils generally normal
- Pulse elevated, blood pressure could be up or down

DRE-Cannabis

• General Indicators:

- Bloodshot eyes
- Body tremors
- Odor of marijuana/green tongue
 - Just noting the odor or a green tongue is NOT sufficient to indicate marijuana usage
- Disoriented
- Relaxed inhibitions
- Difficulty in dividing attention

• Clinical Indicators:

- No nystagmus
- Pupils size usually dilated, but may be normal
- Pulse, blood pressure usually elevated



DAR-7 Step Process

- 1. Horizontal Gaze Nystagmus
- 2. Vertical Nystagmus
- 3. Non-convergence
- 4. Pulse
- 5. Rhomberg Stand
- 6. Pupillary comparison
- 7. Pupillary reaction to light



- The lab strongly recommends performing the SFST's along with the DAR evaluation, as well as taking at least (2) pulses.

Impairment

- The term "drug" is defined as any substance or combination of substances, other than alcohol, which could so affect the nervous system, brain, or muscles of a person as to impair, to an appreciable degree, his/her ability to drive a vehicle in the manner that an ordinary prudent and cautious person, in the full possession of his/her faculties, using reasonable care, would operate a similar vehicle under like conditions. -CALJIC 16.830



Impairment

- Defined as failure to exercise an expected degree of prudence or control to ensure safe operation of a vehicle
- Demonstrated by the inability to perform a designated task.
- Cannot define a Blood or Urine Drug concentration as a threshold of impairment. In other words...there is no per se level
- Impairment is not a number (unlike alcohol)
 - › Chemistry and pharmacology of drugs is much more complex
 - › High individual variation due to drug use history



Impairment



- Important to get the information on poor driving, signs, symptoms and behavior.
- DRE evaluates and documents impairment due to a category(s) of drug
- Toxicology analysis is scientific evidence of presence of drug

Impairment-23152

- Operating a motor vehicle while a person is impaired by drugs and/or alcohol such that their "physical or mental abilities are impaired to such a degree that he/she no longer has the ability to drive a vehicle with the caution characteristic of a sober person or ordinary prudence under the same or similar circumstances" (CALJIC 16.831)
- Must demonstrate mental impairment
- Prefer a blood sample



Under the Influence-11550

- "Driving under the influence" as stated in 23152 is NOT the same as "being under the influence" of a controlled substance.
- Just because the drug is present in blood does not mean individual is impaired.



Under the Influence-11550

- Demonstrate the subject used a controlled substance a short time before their arrest or that the subject was under the influence of a controlled substance when arrested (CALCRIM 2400).
- The drug is present and acting on the person's brain (manifesting in some appreciable manner)
 - Rapid speech, rapid heart rate, bruxism, dilated pupils, fidgety, sweating, rapid flight of ideas, etc.



Resources

- <http://www.ndaa.org/index.html>
- www.nhtsa.gov/people/injury/research/job185drugs/drugs_web.pdf
- NHTSA Website (FST Validation Studies)
- <http://www.justice.gov/dea/druginfo/factsheets.shtml>
- **Defense Attorney Websites**
 - <http://www.drunkdrivingdefense.com/publications-articles/101-ways-summary.htm>
 - <http://www.shouselaw.com/ca-dui-defense.html> (20 Ways to Beat Your California DUI Charges)

Questions???

IT'S A QUESTION PARTY!



Top portion of form to be completed by the MCLE Provider

- Legal Ethics _____
- Elimination of Bias in the Legal Profession _____
- Prevention, Detection and Treatment of Substance Abuse/Mental Illness that Impairs Professional Competence _____

Upcoming MLCE class

Topic: **Crime Lab Forensics**
Date: 10/10/16 (Court Holiday)
Time: 10 – noon, 1:30 – 3:30
(This is NOT 2 separate sessions. This is one continuous class with a break for lunch)
Place: HOA: Lower Plaza Assembly Room
Speakers: Regina Davidson (Controlled Substances),
Keith Nakagawa (Toxicology),
Arsenio Ricafrente (Blood Alcohol)
MCLE: 4.00 hours general credit

Mandatory: Mandatory attendance for the misdemeanor and narcotics units.

This class will review the capabilities of each section (toxicology, drugs and alcohol) in the crime lab. It will also review typical alcohol defense tactics seen by the analysts. While this class is mandatory for the two units listed above, it is open to all other units.

The Ventura County District Attorney's Office is a State Bar of California approved MCLE provider. The above listed class will qualify for 4.00 hours of general MCLE credit by the State Bar.