How do we define the term “drug” for DRE purposes?

“Any substance that, when taken into the human body, can impair the ability of the person to operate a vehicle safely”

Basic Drug Statistics

• What drug other than alcohol was found most frequently in the Los Angeles Field Validation Study?
• What does “polydrug use” mean?
Basic Drug Statistics

• How common was polydrug use in the LA Field Validation Study?
• How good were the DREs in the Field Validation Study?

Basic Drug Statistics

• In the University of Tennessee Study, what percentage of injured drivers had drugs other than alcohol in them?
Review of Symptomatology

• Name six different CNS Depressants
• Name four different CNS Stimulants
• Name two naturally-occurring Hallucinogens
• Name four different synthetic Hallucinogens

Review of Symptomatology

• Name a major analog of PCP
• Name the three sub-categories of Inhalants
• What is the active ingredient in Cannabis?
Review of Vital Signs: Pulse Rate

• Define “Pulse”
• True or false: Pulse rate is measured in units of “millimeters of mercury”.

Review of Vital Signs

• Define “Pulse”
• True or false: Pulse rate is measured in units of “millimeters of mercury”.

Review of Vital Signs: Pulse Rate (Cont.)

• Name three different pulse points, and indicate where they are located.
• What is the “normal” range of adult human pulse rate, for DRE purposes?

Review of Vital Signs: Pulse Rate (Cont.)

• Name three different pulse points, and indicate where they are located.
• What is the “normal” range of adult human pulse rate, for DRE purposes?
Review of Vital Signs: Blood Pressure

• Define “Blood Pressure”.
• Name the instrument used to measure blood pressure.
• When does blood pressure reach its highest value? What is the highest value called?

Review of Vital Signs: Blood Pressure (Cont.)

• When does blood pressure reach its lowest value? What is the lowest value called?
• What is the “normal” range of adult human blood pressure, for DRE purposes?
Review of Vital Signs: Blood Pressure (Cont.)

• What does “Hg” stand for?

Review of the Eye Examinations: Horizontal Gaze Nystagmus

• What are the three validated clues of impairment that have been established for HGN?
Review of the Eye Examinations: Horizontal Gaze Nystagmus (Cont.)

• What formula expresses the approximate statistical relationship between BAC and the angle of onset of nystagmus?
• What categories of drugs usually will cause HGN?

Review of the Eye Examinations: Vertical Gaze Nystagmus

• True or False: Any drug that causes HGN may also produce Vertical Gaze Nystagmus.
• What category of drugs causes Vertical Gaze Nystagmus but not Horizontal Gaze Nystagmus?

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Review of the Eye Examinations: Horizontal Gaze Nystagmus (Cont.)

• True or False: Any drug that causes HGN may also produce Vertical Gaze Nystagmus.
• What category of drugs causes Vertical Gaze Nystagmus but not Horizontal Gaze Nystagmus?
Review of the Eye Examinations: Lack of Convergence

• True or False: Any drug that causes nystagmus will also usually cause the eyes to be unable to converge.

• What category of drugs usually causes lack of convergence but does not cause nystagmus?

Review of the Darkroom Examinations

• What are the three lighting conditions under which we must estimate the size of the suspect’s pupils?

• How long should we wait in the Darkroom before beginning to check the suspect’s pupils?
Review of the Darkroom Examinations

• Name the device that we use to estimate the size of the suspect’s pupils.
• What do the numbers on the Pupillometer refer to?
• In what units of measurement are those numbers given?

Review of the Darkroom Examinations

• For DRE purposes, what is the “normal” range of an adult pupil in room light?
• What does the term “MIOSIS” mean?
Review of the Darkroom Examinations

• What does the term “MYDRIASIS” mean?
• What category of drugs usually causes Miosis, or constricted pupils?

• What categories usually cause Mydriasis, or dilated pupils?
• What is unique about the drug Methaqualone (Quaaludes) and SOMA?
Review of the Divided Attention Tests
• Name the four Divided Attention Tests administered during the DRE drug influence evaluation.

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Review of the Divided Attention Tests
• Why is the Modified Romberg Balance always the first test administered?

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Review of the Divided Attention Tests
• What four validated clues of impairment have been established for the One Leg Stand Test?

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Review of the Divided Attention Tests
• What four validated clues of impairment have been established for the One Leg Stand Test?
Review of the Divided Attention Tests

• How many times is the One Leg Stand administered during the DRE drug influence evaluation?
• Which foot must the suspect stand on first when performing the One Leg Stand?

Review of the Divided Attention Tests

• How many validated clues of impairment have been established for the Walk and Turn test? Name them.
Review of the Divided Attention Tests

• In what sequence is the suspect instructed to touch the index fingers to the nose on the Finger to Nose test?

General Review Questions

• What is the medical or technical term for “droopy eyelids”?
• What does “Piloerection” mean? What drug often causes piloerection?
• What is the medical or technical term for Heroin?
General Review Questions

- Explain the terms “Null”, “Additive”, “Antagonistic” and “Overlapping” Effect as they apply to polydrug use. Give examples

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General Review Questions

- What is “Rebound Dilation”?  

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General Review Questions

- What is “Rebound Dilation”?  

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General Review Questions

• What is pupillary unrest?
• What does “Bruxism” mean?

General Review Questions

• What does the number denoting the size of a hypodermic needle refer to?
• What does “Synesthesia” mean?
• What is “Sinsemilla”?
General Review Questions

• What are the twelve major components of the DRE drug influence evaluation?

Review of Physiology

• Name the ten major body systems.

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Review of Physiology

• What is the distinction between the “Smooth” muscles and the ”Striated” muscles?
• What do we call the chemicals that are produced by the Endocrine System?
• What is a neuron?

Review of Physiology

• What do we call the space between two nerve cells?
• What do we call the chemicals that pass from one nerve cell to the next?
• What do we call the part of the nerve cell that sends out the neurotransmitter?
Review of Physiology

- What do we call the part of a nerve cell that receives the neurotransmitter?
- What do the Sensory Nerves do?
- What do the Motor Nerves do?

Review of Physiology

- Name the two sub-divisions of Motor Nerves.
- Name the two sub-divisions of Autonomic Nerves and describe their functions.

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Review of Physiology

- Name the two sub-divisions of Motor Nerves.
- Name the two sub-divisions of Autonomic Nerves and describe their functions.
Review of Physiology

- What does it mean to say that a drug is “sympathomimetic”?
- What does it mean to say that a drug is “parasympathomimetic”?

Review of Physiology

- Which two categories of drugs can most appropriately be called sympathomimetic?
- Which category can most appropriately be called parasympathomimetic?
Review of Physiology

• What is an artery?
• What is a vein?

Review of Physiology

• What is the Pulmonary Artery, and what is unique about it?
• What are the Pulmonary Veins and what is so special about them?

QUESTIONS?

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A SELF-TEST FOR REVIEW AND STUDY

Circle the letters corresponding to the correct answers. Note that some questions have **more than one** correct answer.

1. Suppose you examine a suspect that you know is under the combined influence of Demerol and Thorazine. Which of the following would you **not** expect to find in that suspect? (Circle all that you wouldn't expect to see.)

   A. Tachycardia is present
   B. Horizontal Gaze Nystagmus is present
   C. Hypotension is present
   D. Mydriasis is present
   E. Lack of Convergence is present

2. The Autonomic Nervous System has **sympathetic** nerves and ____ nerves.

   A. parasympathetic
   B. metasympathetic
   C. postsympathetic
   D. mesosympathetic
   E. pilosympathetic

3. Suppose you examine a suspect that you know is under the combined influence of Ketamine and Methamphetamine, and you observe that he or she exhibits Horizontal Gaze Nystagmus. This is an example of ....

   A. A Synergistic Effect
   B. An Antagonistic Effect
   C. The Null Effect
   D. An Overlapping Effect
   E. An Additive Effect

4. The technical term meaning "constricted pupils" is ....

   A. Mydriasis
   B. Occulosis
   C. Miosis
   D. Bruxism
   E. Ptosis
5. **Chloral Hydrate** is an example of ....

A. a Non-Barbiturate  
B. an Anti-Psychotic Tranquilizer  
C. an Anti-Depressant  
D. a Barbiturate  
E. an Anti-Anxiety Tranquilizer

6. **Numorphan** is an example of ....

A. a Synthetic Opiate  
B. an Analog of Phencyclidine  
C. a Natural Alkaloid of Opium  
D. an Opium Derivative  
E. a non-Amphetamine-based Stimulant

7. Which of the following ordinarily will cause Horizontal Gaze Nystagmus? (Circle all that usually cause nystagmus.)

A. Methamphetamine  
B. Valium  
C. The combination of Cocaine and Xanax  
D. The combination of Cannabis and LSD  
E. The combination of Heroin and Dilaudid

8. **Ritalin** is an example of ....

A. a CNS Stimulant  
B. a Narcotic Analgesic  
C. an Hallucinogen  
D. a CNS Depressant  
E. an Analog of Phencyclidine

9. Suppose you examine a suspect that you know is under the combined influence of Heroin and PCP, and you observe that he or she exhibits miosis. This is most likely due to ....

A. The "Downside" of Heroin  
B. An Overlapping Effect between the two drugs  
C. An Antagonistic Effect between the two drugs  
D. An Additive Effect between the two drugs  
E. The "Downside" of PCP
10. Which of the following usually will be true in a subject who is under the influence of an Hallucinogen? (Circle all that usually will be true.)

A. Pupils will be constricted
B. Body temperature will be elevated
C. Eyes will be unable to converge
D. Blood pressure will be elevated
E. Horizontal Gaze Nystagmus will be present

11. Which of the following is not classified as an Hallucinogen? (Circle all that are not Hallucinogens.)

A. ETOH
B. DOM
C. MDMA
D. 2CB
E. THC

12. Which of the following ordinarily will leave body temperature within the DRE average range? (Circle all that usually don't affect body temperature.)

A. CNS Stimulants
B. Dissociative Anethetics
C. Cannabis
D. CNS Depressants
E. All of the above usually do affect body temperature

13. Suppose you examine a suspect that you know is under the combined influence of Percodan and Cannabis, and you find that the suspect's pulse rate is 74 bpm. This is most likely due to ....

A. An Additive Effect between the two drugs
B. The "Downside" of Cannabis
C. An Overlapping Effect between the two drugs
D. An Antagonistic Effect between the two drugs
E. The "Downside" of Percodan

14. How many distinct, validated clues have been established for the Modified Romberg Balance test?

A. Eight
B. Six
C. Four
D. Three
E. There are no validated clues for that test.
15. A person under the combined influence of Ritalin and LSD usually will have above normal blood pressure. This is an example of ....
   A. An Overlapping Effect
   B. A Synergistic Effect
   C. The Null Effect
   D. An Additive Effect
   E. An Antagonistic Effect

16. The gap between two nerve cells is called the ....
   A. Vesicle
   B. Neuron
   C. Synapse
   D. Dendrite
   E. Axon

17. "Ptosis" most nearly means ....
   A. Dilated pupils
   B. Grinding the teeth
   C. Constricted pupils
   D. Droopy eyelids
   E. Goose bumps

18. How many distinct, validated clues have been established for the Walk-and-Turn test?
   A. Eight
   B. Six
   C. Four
   D. Three
   E. There are no validated clues for that test.

19. Which of the following are not subcategories of Inhalants? (Circle all that are not proper names for Inhalant Subcategories.)
   A. Fluorocarbons
   B. Anesthetic Gases
   C. Aerosols
   D. Volatile Solvents
   E. Propellants
20. **Phencyclidine** is best described as ....

   A. parasympathomimetic  
   B. an anti-depressant  
   C. a cellular stimulant  
   D. psychotophobic  
   E. a dissociative anesthetic

21. Which of the following usually **will not cause** the pupils to dilate? (Circle all that usually do not cause dilation.)

   A. MDMA  
   B. Methaqualone  
   C. Desoxyn  
   D. Peyote  
   E. Ketamine

22. Which subcategory or subcategories of Inhalants usually cause blood pressure to **be depressed**? (Circle all that usually cause a depressed pressure.)

   A. Anesthetic Gases  
   B. Propellants  
   C. Volatile Solvents  
   D. Aerosols  
   E. Fluorocarbons

23. Which of the following are **Natural Alkaloids** of opium? (Circle all that are Natural Alkaloids.)

   A. Lortab  
   B. Dilaudid  
   C. Codeine  
   D. Thebaine  
   E. Hycodan

24. "**Crank**" is a street name for ....

   A. Heroin  
   B. Cocaine  
   C. PCP  
   D. Methamphetatmine  
   E. LSD
25. Which of the following are not validated clues for the One Leg Stand test? (Circle all that aren't validated clues.)

A. Hopping  
B. Raising the arms  
C. Putting the foot down  
D. Failing to count out loud  
E. Swaying

26. Which of the following would be considered sympathomimetic drugs? (Circle all that are sympathomimetic.)

A. MDMA  
B. Dexedrine  
C. Xanax  
D. Oxycontin  
E. Desoxyn

27. Suppose you examine a suspect, and you observe all of the following: Horizontal Gaze Nystagmus is present, with an onset of approximately 30 degrees; BAC is 0.00; eyes are unable to converge; pupil size is 5.5 mm in near-total darkness and 3.5 mm in direct light; pupil reaction to light is within normal; pulse rate is 100 bpm; blood pressure is 148/96; body temperature is 99.8 degrees. In your opinion, this suspect is under the influence of ....

A. a combination of a CNS Depressant and a CNS Stimulant  
B. a CNS Depressant alone  
C. a Dissociative Anesthetic alone  
D. a combination of a Dissociative Anesthetic and a CNS Stimulant  
E. a combination of a CNS Depressant and Cannabis

28. The only artery that carries de-oxygenated blood is the ____ artery.

A. Carotid  
B. Brachial  
C. Pulmonary  
D. Radial  
E. Coronal

29. Suppose a subject is under the influence of Hycodan and nothing else. Indicate whether each of the following will be true or false:

A. T  F Horizontal Gaze Nystagmus will not be present  
B. T  F Pupils will be constricted  
C. T  F Bradycardia will be present  
D. T  F Eyes will be able to converge  
E. T  F Hypotension will be present
30. "Bruxism" most nearly means ....

A. Dilated pupils
B. Grinding the teeth
C. Constricted pupils
D. Droopy eyelids
E. Goose bumps

31. Suppose a suspect is under the influence of a combination of Marijuana and Cocaine, but nothing else. Indicate whether each of the following will be true or false:

A. T  F  Pulse rate will be elevated
B. T  F  Pupils will be dilated
C. T  F  Horizontal Gaze Nystagmus will be present
D. T  F  Eyes will be able to converge
E. T  F  Blood pressure will be elevated

32. How many distinct, validated clues have been established for the Finger-to-Nose test?

A. Eight
B. Six
C. Four
D. Three
E. There are no validated clues for this test.

33. The drug _____ is an example of an Anti-Anxiety Tranquilizer. (Circle all that are Anti-Anxiety Tranquilizers.)

A. Librium
B. Valium
C. Amobarbital
D. Chloral Hydrate
E. Xanax