Polydrug Challenges: Perspectives from the Field

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Types of Effects: “The Null Effect”

No Action + No Action = No Action

If neither drug affects a particular indicator, the combination of drugs will not effect that indicator.

Example: Cocaine + Heroin = NO Horizontal Gaze Nystagmus
Types of Effects: “The Overlapping Effect”

Action + No Action = Action

If one drug affects a particular indicator, but the other does not, then the indicator is affected.

Examples: Alcohol + Cocaine = Horizontal Gaze Nystagmus
Heroin + Cannabis = Lack of Convergence
Alcohol + Ecstasy = Dilated Pupils
Types of Effects: “The Additive Effect”

**Action + Action = Reinforced Action**

If both drugs affect a particular indicator in the same way, the indicator will be present and may be reinforced or increased.

Examples:
- Xanax + Alcohol = Horizontal Gaze Nystagmus (+)
- Cocaine + PCP = Elevated Pulse (+)
- Ecstasy + Cannabis = Dilated Pupils (+)
Types of Effects: “The Antagonistic Effect”

Action + Opposite Action = Unknown

If both drugs affect a particular indicator in the same way, the indicator will be present and may be reinforced or increased.

Examples:
Heroin + Cocaine = Dilated, Normal, or Constricted Pupils
MDMA + Xanax = Elevated, Normal, or Depressed Pulse
Scenarios

• Driver demonstrates psychomotor impairment, drowsiness, driving manifestations, 2/6 HGN, 3/8 WAT, 2/4 OLS, .04 PBT, had recent dental surgery, doesn’t recall medication taken.

• Driver demonstrates psychomotor impairment, sluggish / slow movements, driving manifestations, 6/6 HGN, 3/8 WAT, 2/4 WAT, .04 PBT. Takes medicine for anxiety and depression.

• Driver has difficulty following instructions, seems euphoric, poor vigilance, 0/6 HGN, 3/8 WAT, 1/4 OLS then stops test. Normal pupils, little reaction to light, normal pulse. Appears to be falling asleep while you talk to another officer about observations.
How This Affects Officer Decisions

• Observational Challenges
• Classification & Inference Challenges
• Characterization Challenges
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