What drug is the patient using?

How to identify drug use without a drug screen

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Objectives

- 1. Identify intoxications based on physical exam
- 2. Develop and approach to noticing these clues
- 3. Clinically respond to intoxications appropriately

In the first ten seconds with a patient, notice….

- What do their vitals tell you
- Look at their pupils, look at their conjunctiva, look at their eye lids
- Look at their hands – coordination, rigidity and movement
- Have they gained or lost weight, are they sweating and flushed, how is their skin and hygiene
- Watch them walk – slow, fast, weaving, unsteady
- Let them talk uninterrupted
  - Listen to the rhythm and tone of their speech
  - Listen to the content and flow of their speech
  - Do they ramble on or drift off?

Case One: 32-year-old man with depression seen in clinic

- Before seeing “Joe” your nurse tells you that the front desk is worried about him. He is muttering profanity to himself in the lobby, he smoked outside near the door and when the staff asked him to move farther away, he got angry
- You are treating Joe for depression and he is here for a refill or to request a medication change
- Joe works in a gas station and lives alone in a property he is “renting” from his parents
- He is a tobacco user

Case One: vitals, exam

- HR 95 BP 135/90 T 98.8 RR 18 O2 98% BMI 19
- Joe has lost 12 pounds since his last visit three month ago
- Joe looks poorly groomed and fatigued
- He has 5 mm pupils
- He taps his foot impatiently and shifting in his seat
- With his hands he tightly grips the loose denim of his jeans

Case One: 32-year-old man with depression seen in clinic

- Joe complains to you that the staff in the clinic treated him as a second-class patient, raising his voice slightly
- When you ask him about his mood, he is both defensive and frustrated, saying that what you gave him didn't work and he needs something stronger to get sleep
- When you tell him you are worried about him, he asks, "Why? What do you mean?" with a suspicious tone

What drug is Joe on?

- 1. This is opioid withdrawal
- 2. This is methamphetamine intoxication
- 3. This is benzo (“Xanax”) withdrawal
- 4. This is a mix of club drugs, mostly ketamine

Describe why Joe appears to be using methamphetamines

- Weight loss
- Large pupils
- Increased vitals
- Increased psychomotor activity
- Irritability and fatigue
- Persecution paranoia

Notice every patient's pupils

Pinpoint pupils

- Opioids
- Sunlight

Big Pupils

- Opioid withdrawal
- Stimulants
- Hallucinogens
- PCP/DXM/K *(w/nystagmus)*
- Antichoinergics
- Benzos
- Darkness

What would you do with Joe on this visit?

- Enter into the chat some suggested interventions for a patient on methamphetamines in the primary care clinic

What would you do with Joe on this visit?

- Avoid statements or interventions that might be interpreted as adversarial
  - Express concern, don't argue
- OK to give medication to calm him
  - Either in clinic (loraz) or to take home (hydroxyzine)
- Schedule follow up in one to two weeks
  - Most users intermittently binge
- Call him later to remind him of follow up
  - *At follow up, if Joe is sober, Screen for STIs, HIV, Hep C and discuss drug use and money management*

Why isn’t Joe in opioid withdrawal?

Stimulant use and opioid withdrawal?

Stimulant use and opioid withdrawal sometimes appear similar

In opioid withdrawal the patient is focused on pain, discomfort and attaining opioids, they are evidently suffering

In stimulant use the patient is chatty/pressured and often focused on grievances and disrespect done to them

Case Two: 51-year-old woman In primary care for check up

- This is “Sarah” whom you treat for HTN and peptic ulcer disease presenting with anxiety
- She made an appointment two weeks ago for anxiety, but no-showed and rescheduled for today
- She does not have a history of anxiety disorder
- She does have a history of hazardous alcohol use many years ago, now not drinking
- She is separated from her husband and has adult children

Case Two: vitals, exam

- HR 65 BP 125/90 T 96.5 RR 12 O2 97% BMI 24
- The patient bumped into the door frame as she entered the room, then giggled before regaining her composure. She sit unevenly in the chair
- Her make-up is poorly applied
- She has 6 MM pupils
- She has an old bruise on her forehead
- She has a placid smile, and at one point briefly begins crying

Case Two: 51-year-old woman In primary care for check up

- She tells you a rambling story of how her anxiety is very high due to her work and family issues
- She casually discloses to you that she had an extramarital affair, giggles again then cries
- When explaining her work stress, she asks what your salary is and compliments your clothing
- She keeps repeating she is anxious. You realize she will keep talking unless you interrupt her
- At one point she tries to put her elbow on the table and misses, slipping off the table a bit

What drug is Sarah on?

- 1) She is vaping cannabis oil
- 2) She is using pharmaceutical opioids
- 3) She is using benzodiazepines
- 4) She is not using drugs, rather she has a concussion

Describe why Sarah's appears to be using Benzodiazepines

- Clumsiness
- Large pupils
- Facial bruise
- Forgetful (missed prior appt)
- Overly disclosing of personal information
- Inappropriate questioning of your information
- Giggling inappropriate for circumstances
- Rambling repetitive monologue

Watching patients' hands (& feet)

- Repetitive rapid "automated" movements like tapping or picking, gripping or contorting suggests stimulants (Caffeine, anyone?)
- Dropping or fumbling, forgetting you are holding something, or misjudging distances suggests benzodiazepines
- Lazy slow deliberate movements OR trance like itching yourself suggest opioids

What would you do with Sarah on this visit?

- Enter into the chat a few interventions you would do for a patients in the primary care clinic who presents on benzos

What would you do with Sarah on this visit?

- Ok to carefully ask questions about drug use on this visit, but do not counsel her (she will forget)
- Expect her to say some inappropriate things, ignore it
- Anything important for her to know should be written down
- Make sure she has a safe way home
- You may need to interrupt her to end the visit
- Schedule follow up (including reminder call) to screen her for wd/seizure risk and alcohol use
- OK to prescribe SSRI or not, but no controlled substances

Why isn’t she on opioids?
Why isn’t it a concussion?

Case Three: Emergency Visit for 60-year-old woman with breast cancer

- This is a 60-year-old patient “Cathy” with breast cancer initiating chemotherapy. A friend advised she try cannabis to help tolerate the adverse effects
- Cathy’s friend brought her a vape pen with a viscous liquid within it, saying it was cannabis oil
- The patient had not used cannabis since college many decades ago. She uses no other drugs
- She has no mental health diagnosis
- She believes the substance she ingested was not cannabis, but PCP or Bath salts

Case Three: vitals and exam

- HR 120 BP 140/95 T 97.3 RR 18 O2 99% BMI 21
- The patient appears very anxious and gasping heavily and holding her chest
- She is looking around the room as if for help
- She is tremulous
- She has 3 MM pupils, conjunctival injection
- She says: “time is racing slowly” and stares at length at the cardiac monitor tracing
- She is oriented, redirectable and can answer questions appropriately

Case Three: Emergency Visit for 60-year-old woman with breast cancer

- Her spouse reports that within 20 minutes of inhaling the vapor she was staring blankly at a wall and had a long delay before answering questions
- Then she began to feel intense palpitations, shortness of breath and chest pain
- She became worried that she was having a heart attack and needed medical attention
- She described the vapor taste like chemicals and like grapes

What was in Cathy's Vape Pen?

- 1) Only cannabis
- 2) Cannabis and ketamine
- 3) Only Bath Salts (synthetic cathinone)
- 4) Salvia Divinorum

Describe why Cathy in fact took only cannabis

- Tachycardia and hypertension (may have orthostasis)
- Conjunctival injection, normal pupil size
- Panic attack
- Perceptual disturbance (time, colors) but still oriented and tracking

Conjunctival injection “Bloodshot eyes”

- Bloodshot eyes suggests alcohol or cannabis
- Most prominent with higher-than-normal doses or for intermittent users

- Many causes of bloodshot eyes other than drugs

What would you do with Cathy on this visit?

- Enter into the chat some interventions to do in the emergency room for a patient with a cannabis induced panic attack

What would you do with Cathy on this visit?

- Reassure her
- Rule out MI and pulmonary pathologies
- Get drug toxicology as appropriate to confirm no other ingestion
- Offer symptomatic treatment (lorazepam)
- Observe (in hours she will feel better)
- Educate her on panic as an adverse effect of cannabis

Why wasn’t it PCP?
Why wasn’t it Bath Salts?

Case Four: 57-year-old man confused

- 911 is called when “Bill” wandered in scant clothing into his neighbors' yard and seemed unwell
- Bill does not regularly seek medical care, thus has no known medical problems
- EMS report that he refused to go into his house because he believed it was infested with large spiders.
- Bill was unable to follow/answer questions
- The neighbors described Bill as a loner who doesn’t come out much

Case Four: vitals and exam

- HR 107 BP 144/97 T 99.0 RR 17 O2 96% BMI 32
- Pupils 3 MM
- The patient appears diaphoretic and tremulous
- He appears emotional and anxious
- He is not oriented and not able to answer questions
- His eyes are darting around the room
- He is scratching his skin diffusely and pulling at IV lines

What drug caused Bill's condition?

- 1) Cocaine Binge
- 2) Inhaled phencyclidine (PCP)
- 3) Robitussin overdose (DXM, diphenhydramine)
- 4) Alcohol withdrawal

Why is this delirium tremens from alcohol (or sedative) WD?

- Tachycardia, hypertension, hyperthermia
- Anxiety
- Diaphoresis, tremor
- Zoonopsia (animal hallucination)
- Formication (tactile hallucination)
- Delirium

Diaphoresis – the sweats

- Opioid use
- Opioid withdrawal
- Alcohol/sedative withdrawal

- Possibly stimulants along side hyperactivity and hyperthermia (though they are often also dehydrated)

- Psychiatric medications and a few other meds also cause sweating

Hallucinations

- Cannabis
  - Mild perceptual disturbances, visual and time
- Psychedelics
  - More intense, elaborate and sometimes troubling perceptual disturbance without confusion or impaired sensorium
- Stimulants
  - Persecutorial hallucinations – people perceived to making threatening gestures or statements
- Dissociatives
  - Inability to process perceptual inputs causing confusion and agitation
- Salvia Divinorum (kappa agonist)
  - Brief intense out of body experience
- Alcohol wd
  - Auditory hallucinations not bizarre with clear mentation OR…
  - Outright delirium with hallucinations of animals and tactile hallucinations

What would you do for Bill on this visit?

- How do you treat delirium tremens in the emergency department? Enter into chat suggestions

What would you do for Bill on this visit?

- Admit to the hospital, possibly ICU bed
- Treat with IV benzodiazepines promptly
- Treat with IV thiamine promptly
- IV fluids
- Check and replace electrolytes
- Check Liver enzymes
- Rule out medical causes of delirium (pneumonia)

Why wasn’t it PCP?
Why wasn’t it a Cocaine binge?

Identifying toxidromes

- There are many approaches to toxidromes
- Even the most experienced clinician gets fooled often
- But it is critical that you understand that different drugs look differently and notice clues on exam
- Train yourself to systematically look for clues of intoxication and you will often see it

In summary, notice your patients….

- Vital signs
- Pupil size, conjunctiva and eye lids
- The content and rate of their speech
- Hand and feet motion and coordination
- Sweating
- Weight loss
- Hallucination type

Thank you
Questions?