What's New in Substance Use Disorders

COLORADO PAIN SOCIETY SEPTEMBER 2022

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DENVER HEALTH AND HOSPITAL AUTHORITY

Disclosures

- No relevant financial disclosures

Learning Objectives – at the end of this talk participants should be able to:

1. Screen (and bill) for risky substance use using a patient self-administered tool
2. Limit benzodiazepine prescribing to best practice indications
3. Test for fentanyl when monitoring OUD patients
4. Adjust buprenorphine induction strategies in response to fentanyl
5. Recognize impacts of novel synthetic opioids and adulterants
6. Implement evidence-based medical treatments for methamphetamine use disorder
7. Avoid harms caused by unilateral opioid tapering

Screening

THE TAPS: A PROVIDER-OR PATIENT-ADMINISTERED TOOL

Ms. Graza

- 34 yo female presents for neck arthritis evaluation. PMHx includes generalized anxiety, depression, insomnia
- Medications: Venlafaxine XR 225 mg/d, Clonazepam 0.5 mg BID
- SocHx: Raising 2 children with long-term partner, works as project manager
- ROS: daytime fatigue, unrestful sleep
- Vitals: BP 138/88 HR 74 BMI 29
- PE: Overweight, otherwise unremarkable exam
- Lab: HgbA1c = 5.8, TGs = 263, ALT = 52

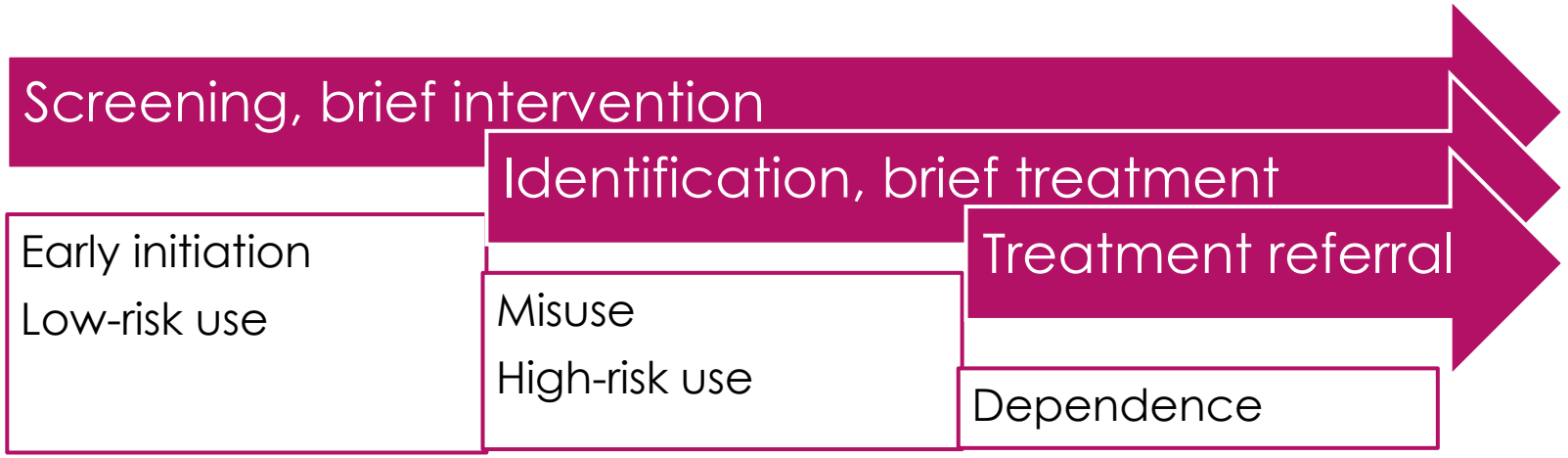
Would you screen this patient for risky alcohol/rug use?

A. No, I would not screen
B. Yes, would screen with CAGE
C. Yes, would screen with SBIRT-ASSIST
D. Yes, would screen with AUDIT or other tool
E. I have no idea; I just ask the questions in my system's EHR

SBIRT

Recommendation Summary

Population	Recommendation	Grade
Adults age 18 years or older	The USPSTF recommends screening by asking questions about unhealthy drug use in adults age 18 years or older. Screening should be implemented when services for accurate diagnosis, effective treatment, and appropriate care can be offered or referred. (Screening refers to asking questions about unhealthy drug use, not testing biological specimens.)	B
Adolescents	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for unhealthy drug use in adolescents. See the "Practice Considerations" section for suggestions for practice regarding the I statement.	I



www.uspreventiveservicestaskforce.org/uspstf/recommendation/drug-use-illicit-screening

Screening Tools

Tool	Substance type		Patient age		How tool is administered	
	Alcohol	Drugs	Adults	Adolescents	Self-administered	Clinician-administered
Screens						
Screening to Brief Intervention (S2BI)	X	X		X	X	X
Brief Screener for Alcohol, Tobacco, and other Drugs (BSTAD)	X	X		X	X	X
Tobacco, Alcohol, Prescription medication, and other Substance use (TAPS)	X	X	X		X	X
Opioid Risk Tool (PDF, 168KB)		X	X		X	
Helping Patients Who Drink Too Much: A Clinician's Guide (NIAAA)	X		X			X
Alcohol Screening and Brief Intervention for Youth: A Practitioner's Guide (NIAAA)	X			X		X
Opioid Risk Tool – OUD (ORT-OUD) Chart		X	X		X	
Assessments						
Tobacco, Alcohol, Prescription medication, and other Substance use (TAPS)	X	X	X		X	X
CRAFFT	X	X		X	X	X
Drug Abuse Screen Test (DAST-10)* *For use of this tool - please contact Dr. Harvey Skinner*		X	X		X	X
Drug Abuse Screen Test (DAST-20: Adolescent version)* *For use of this tool - please contact Dr. Harvey Skinner*		X		X	X	X
NIDA Drug Use Screening Tool (NMASSIST) *(discontinued in favor of TAPS screening above)*	X	X	X			X
Helping Patients Who Drink Too Much: A Clinician's Guide (NIAAA)	X		X			X
Alcohol Screening and Brief Intervention for Youth: A Practitioner's Guide (NIAAA)	X			X		X

https://nida.nih.gov/nidamed-medical-health-professionals/screening-tools-resources/chart-screening-tools

TAPS: Screening

- Replaces NIDA Quick Screen
- Clinician- or self-administered

In the PAST 12 MONTHS, how often have you used tobacco or any other nicotine delivery product (i.e., e-cigarette, vaping or chewing tobacco)?

Daily or almost daily | Weekly | Monthly | Less Than Monthly | Never

In the PAST 12 MONTHS, how often have you had 5 or more drinks (men)/4 or more drinks (women) containing alcohol in one day?

Daily or almost daily | Weekly | Monthly | Less than monthly | Never

In the PAST 12 MONTHS, how often have you used any prescription medications just for the feeling, more than prescribed or that were not prescribed for you?

Daily or almost daily | Weekly | Monthly | Less than monthly | Never

In the PAST 12 MONTHS, how often have you used any drugs including marijuana, cocaine or crack, heroin, methamphetamine (crystal meth), hallucinogens, ecstasy/MDMA?

Daily or almost daily | Weekly | Monthly | Less than monthly | Never

TAPS

Tobacco, Alcohol, Prescription medication, and other Substance use Tool

In the PAST 3 MONTHS, did you have 5 or more drinks (men)/4 or more drinks (women) containing alcohol in a day?

No | Yes

In the PAST 3 MONTHS, have you tried and failed to control, cut down or stop drinking?

No | Yes

In the PAST 3 MONTHS, has anyone expressed concern about your drinking?

No | Yes

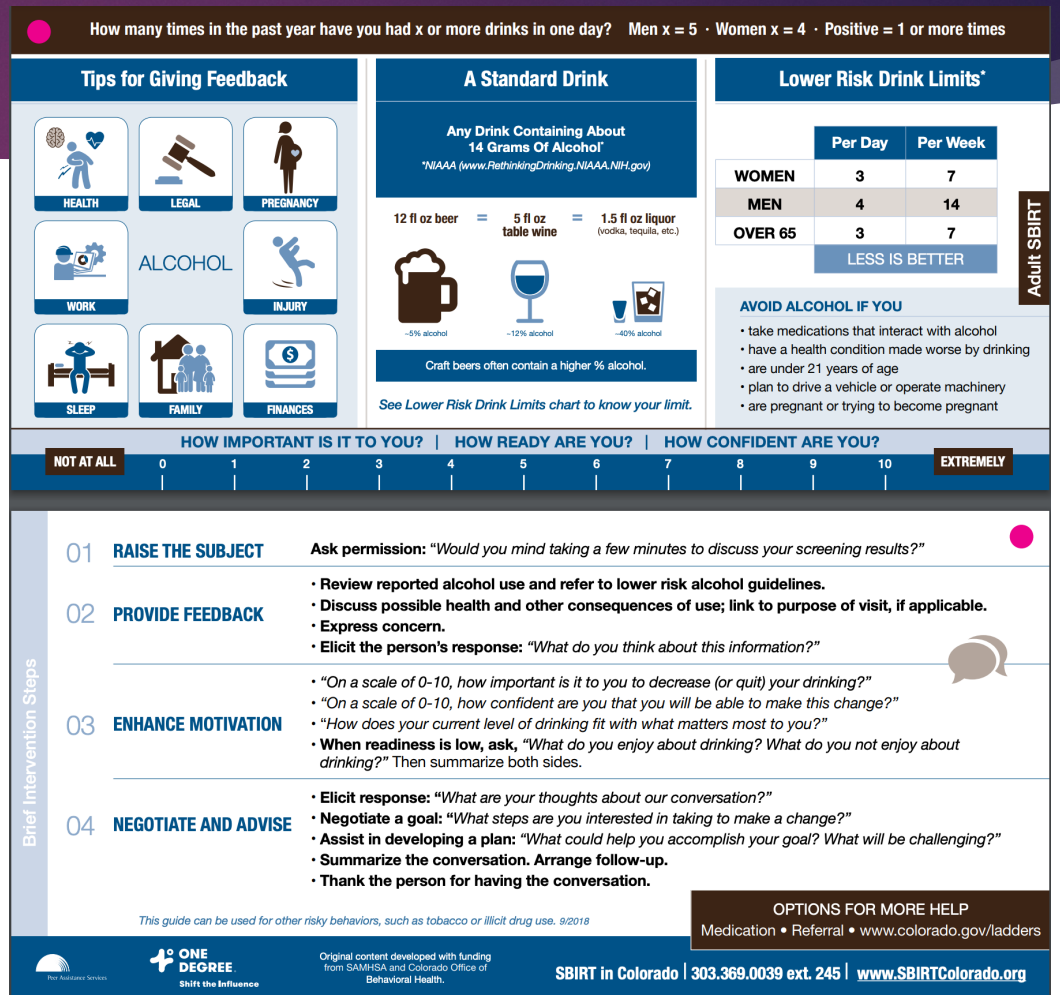
McNeely J, et al. *Ann Intern Med* 2016
Gryczynski J, et al. *JGIM* 2017

Peer Assistance Services Screening Tool

Brief Screen for Substance Use

Question	Positive Screen Criteria
TOBACCO	
Do you currently smoke or use any form of tobacco?	**Positive Screen** = Yes **NEXT STEP:** Explore readiness to quit. Offer assistance and/or arrange additional services.
ALCOHOL	
Drinks per week: How many drinks do you have per week? 12 fl oz beer = 5 fl oz table wine = 1.5 fl oz liquor (vodka, tequila, etc.) ~5% alcohol ~12% alcohol ~40% alcohol	**Positive screen** = More than 7 drinks per week for a female of any age or a male over age 65 **Positive screen** = More than 14 drinks per week for a male up to age 65 **NEXT STEP:** Consider further screening using the AUDIT or another screening tool. Provide a brief intervention and referral to treatment if indicated.
Drinks per day: When was the last time you had 4 or more drinks per day? (Asked of all females and males over the age of 65) **OR** When was the last time you had 5 or more drinks per day? (Asked of males age 65 and younger)	**Positive Screen** = in the past year **NEXT STEP:** Consider further screening using the AUDIT or another screening tool. Provide a brief intervention and referral to treatment if indicated.
MARIJUANA	
In the past year, how many times have you used marijuana?	**Positive screen** = 1 or more times **NEXT STEP:** Explore quantity and frequency of use. Consider further screening using the CUDIT-R or another screening tool. Provide a brief intervention and referral to treatment if indicated.
OTHER DRUGS	
In the past year, have you used or experimented with an illegal drug or a prescription drug for non-medical reasons?	**Positive Screen** = Yes **NEXT STEP:** Identify specific drugs, quantity and frequency of use. Consider further screening using the DAST or another screening tool. Provide a brief intervention and referral to treatment if indicated.
OTHER POSITIVE SCREEN CRITERIA	
For those age 18 – 20	Any alcohol use
For pregnant women	Any alcohol use

SBIRT Pocket Card



Screeningtools.peerassistanceservices.org
www.sbirtcolorado.org

Billing

Use the following codes for patients receiving a screening only.		
CPT CODE	**PAYER**	**DESCRIPTION**
96160	Commercial Insurance	Administration and interpretation of health risk assessment instrument
G0442	Medicare	Screening for alcohol misuse in adults including pregnant women once a year; 15 min.
Use the following codes for patients with a positive screen result and receiving brief intervention counseling.		
CPT CODE	**PAYER**	**DESCRIPTION**
99408	Commercial Insurance, Medicaid	Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30 min.
99409	Commercial Insurance, Medicaid	Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30 min.
G0396	Medicare	Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30 min.
G0397	Medicare	Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30 min.
G0443	Medicare	Up to four, 15 min. brief face-to-face behavioral counseling interventions per year for individuals, including pregnant women, who screen positive for alcohol misuse
H0049	Medicaid	Alcohol and/or drug screening (not widely used)
H0050	Medicaid	Alcohol and/or drug service, brief intervention, per 15 min. (not widely used)
ICD-10 CM		**DESCRIPTION**
Z13.89		Encounter for screening for other disorder
Z13.9		Encounter for screening, unspecified
Z71.41 F10.10		Alcohol abuse counseling and surveillance of alcohol
Z71.42		Counseling for family member of a person with an AUD

CO Medicaid-approved screeners:

- AUDIT
- DAST
- ASSIST
- CRAFFT
- POSIT
- CUDIT-R
- S2BI
- TAPS

Reimbursement

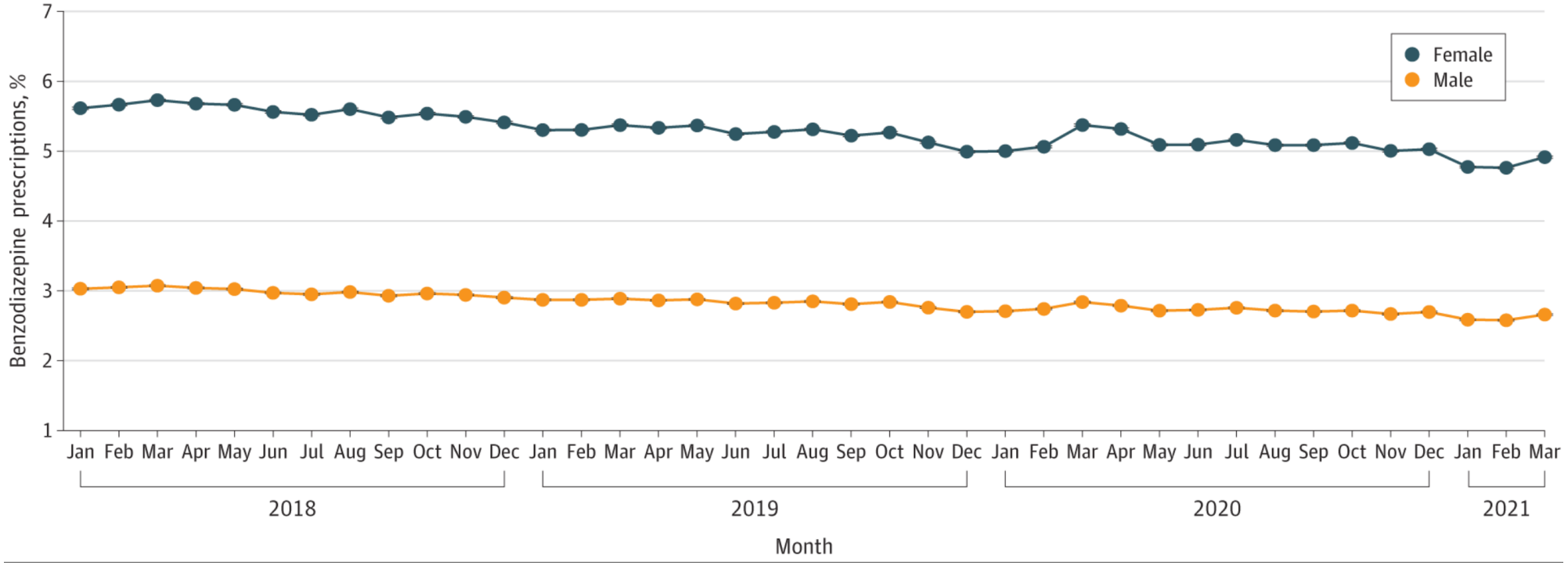
Payer	Code	Description	Fee Schedule
Commercial Insurance	CPT 99408	Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30 minutes	$33.41
	CPT 99409	Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30 minutes	$65.51
Medicare	G0396	Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30 minutes	$29.42
	G0397	Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30 minutes	$57.69
Medicaid	H0049	Alcohol and/or drug screening	$24.00
	H0050	Alcohol and/or drug screening, brief intervention, per 15 minutes	$48.00

https://www.samhsa.gov/sbirt/coding-reimbursement

Benzodiazepine Update

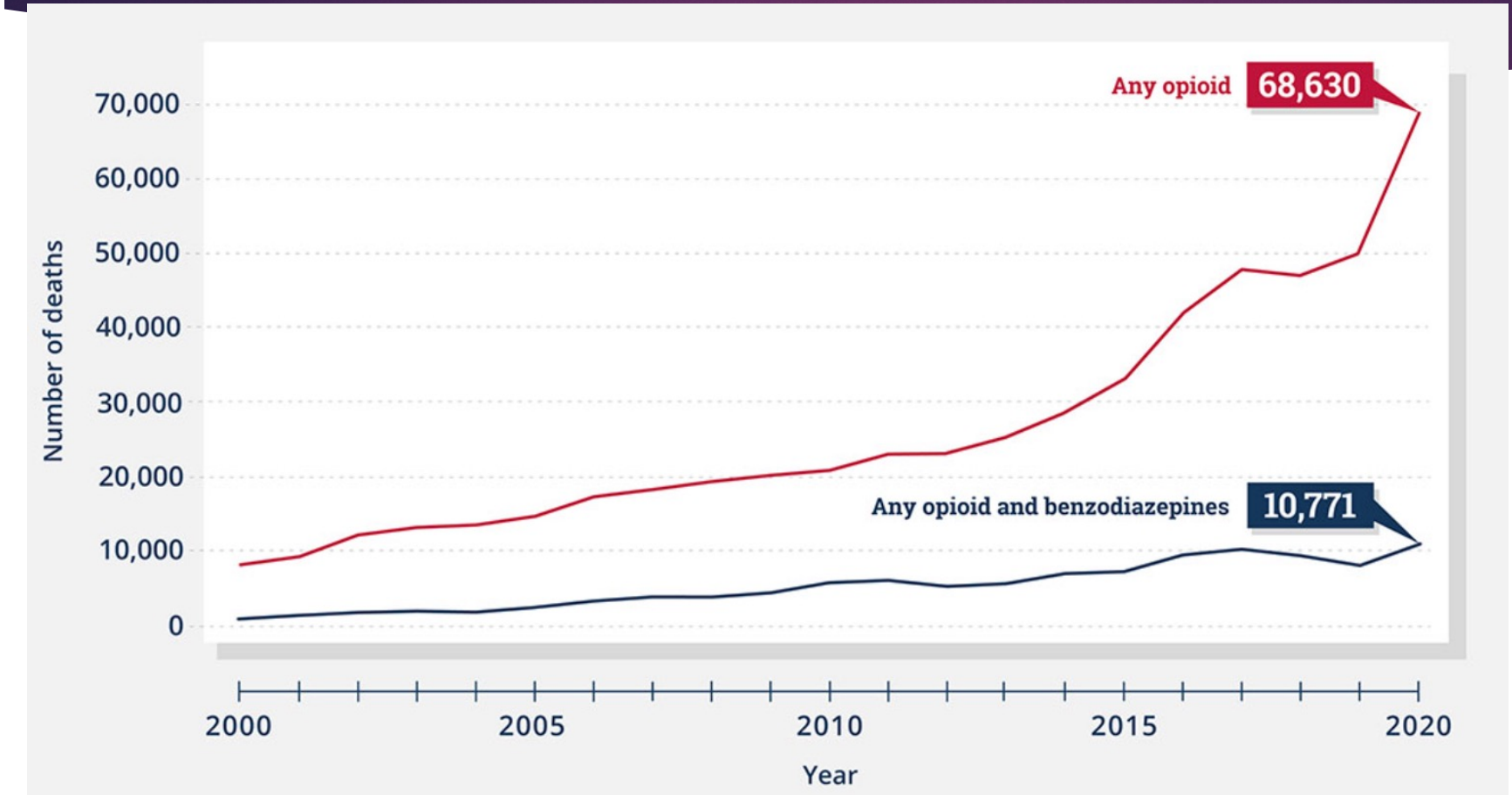
NEW RECOGNITION OF RISKS AND PRESSURE TO DE-PRESCRIBE

Monthly BZD prescription rates remain stable



Milani S et al. *JAMA Network Open* 2021

Yet BZDs increasingly associated with overdose deaths



*Among deaths with drug overdose as the underlying cause, the benzodiazepine category was determined by the T402.4 ICD-10 multiple cause of death code; the any opioid category was determined by the T40.0-T40.4, T40.6 ICD-10 codes.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 2000–2020 on CDC WONDER Online Database, released 12/2021.

The push is on for stricter monitoring

Tori M et al. JAMA Network Open 2020
CDC Wonder Online Database 2021

Outpatient Indications

First Line

- Withdrawal from benzodiazepines
- Withdrawal from alcohol
- Acute severe movement disorders

Second & Third Line

- 'Crisis' anxiety
- *Short-term* treatment of severe acute insomnia
- *Short-term* treatment of severe acute spasm (MS, dystonias)

Limit prescribing to when function is substantially limited

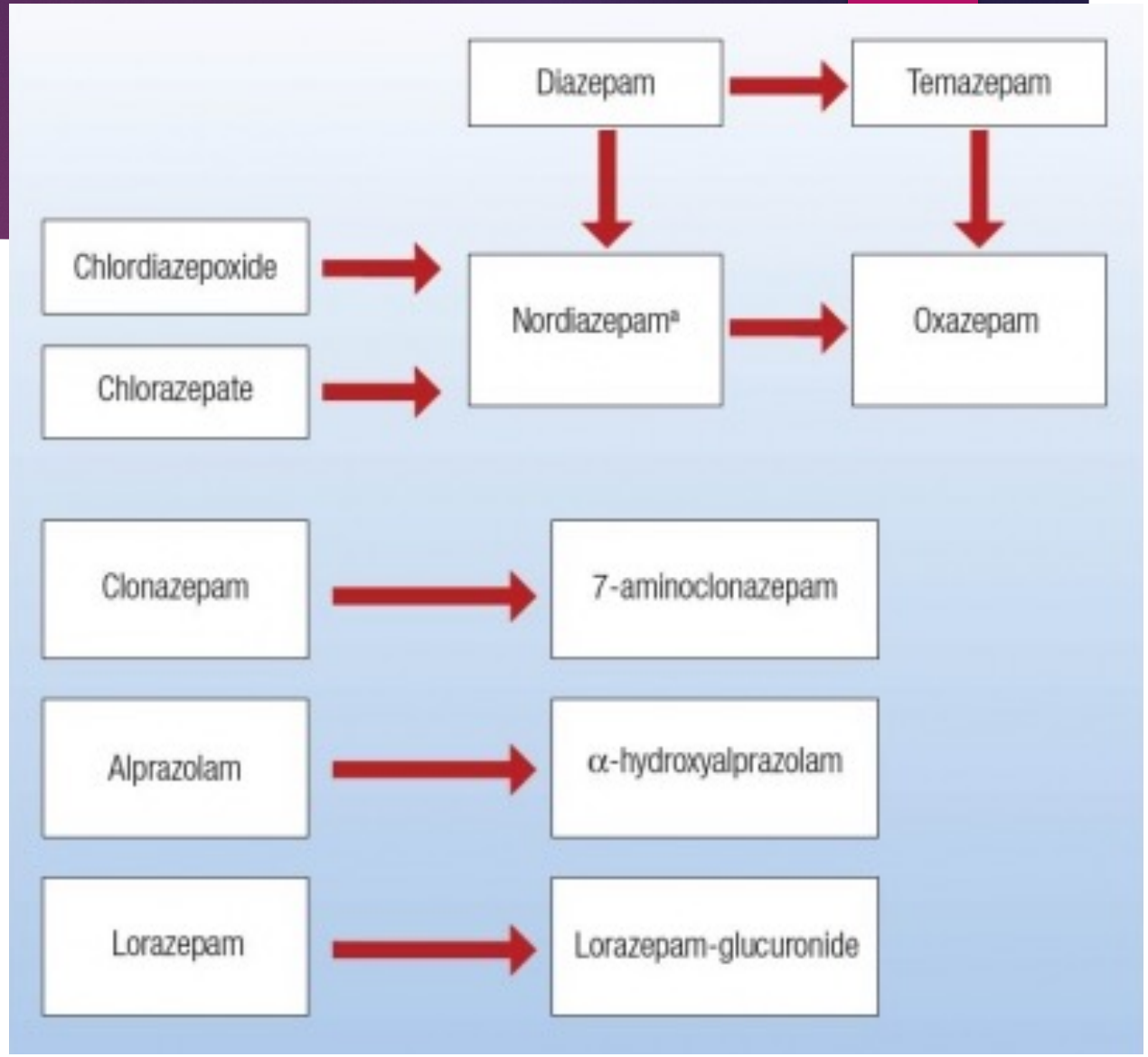
Silvernail CM, Wright SL, *Advances in Therapy* 2022

You check the PDMP and order POC urine toxicology testing. EtG/EtS positive, benzodiazepines negative. The most likely explanation is:

A. She hasn't taken her clonazepam but has been drinking alcohol
B. She has been taking her clonazepam and has been drinking
C. Either A or B
D. I don't know

Benzodiazepine metabolism

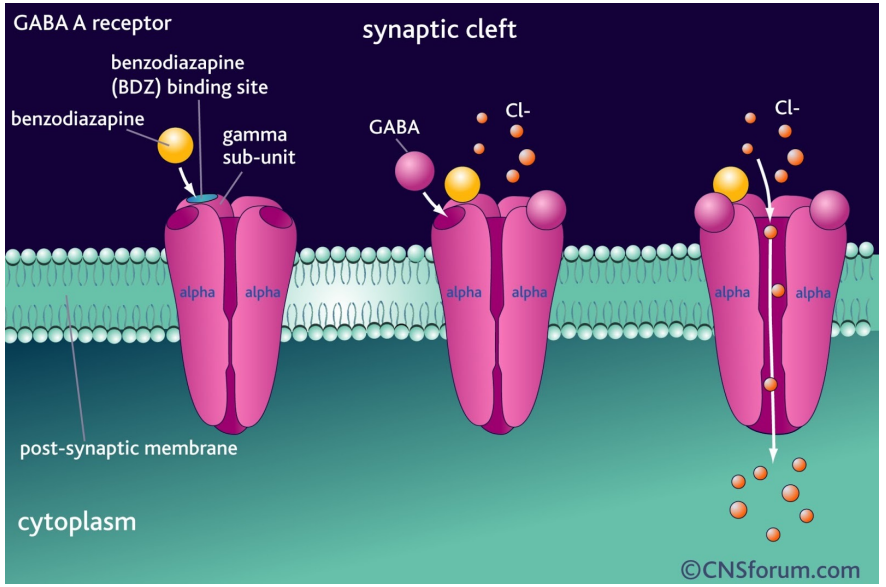
- Standard EIA usually based on nordiazepam or oxazepam
- Will not detect clonazepam
- May not detect alprazolam, lorazepam



Craven C, Fileger M, Woster P. Practical Pain Management Volume 14 2014. https://www.practicalpainmanagement.com/treatments/addiction-medicine/drug-monitoring-screening/demystifying-benzodiazepine-urine-drug

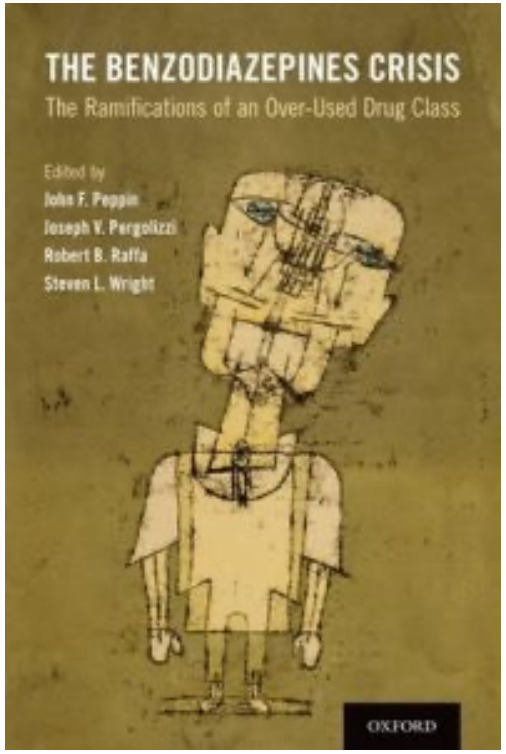
Monitor for use disorder, high risk or lack of benefit

- Misuse, abuse, dependence
- Combination with other CNS-sedating medications, especially opioids
- Rebound symptoms in dosing interval, worsening anxiety
- Increasing recognition of chronic benzodiazepine injury



Benzodiazepine de-prescribing

- Shared decision-making; not forced
- Complete discontinuation may not be possible; dose reduction may be appropriate goal
- Support patient, including fear of coping without bzds
- Slow (4-6 months) to very slow tapers (12-18 months) often necessary
- Monitor for both acute and protracted withdrawal symptoms ("BIND")
- May offer supportive medications: carbamazepine, pregabalin, hydroxyzine
- CBT for anxiety, insomnia



Benzodiazepine tapering and discontinuation

- Consider for age >65, concurrent benzo/opioid use, SUDs cognitive dysfunction, other consequences
- Switch to long-acting benzodiazepine
- Taper dose gradually, 4-6 months generally
  - High doses, longer duration of use may sometimes require prolonged tapering
- Psychotherapy, frequent follow-ups, and withdrawal management instructions help

Canadian Agency for Drugs and Technologies in Health 2015
Ogbonna C, Lembke A. Am Fam Phys 2017

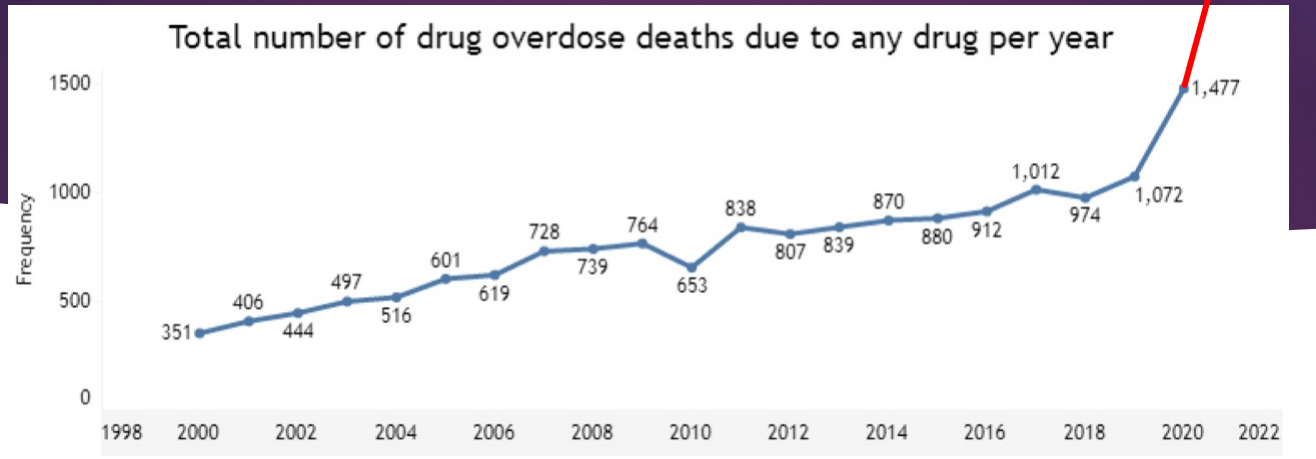
Ms. G, continued

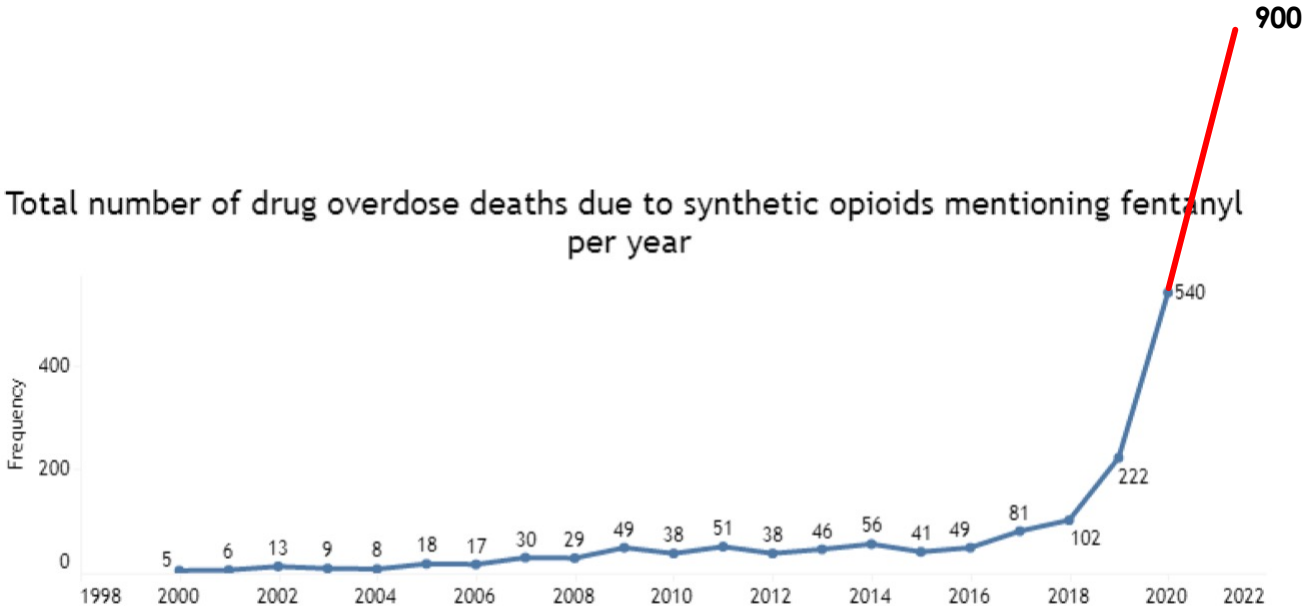
- At next visit, Ms. G also reports she has been using oxycodone "off the street" for her chronic back pain since being "cut off" by her former PCP
- Medication was initially helpful, now must use simply to avoid withdrawal symptoms
- Her use has impacted her finances and relationships, and her erratic mood has got her in trouble at work.
- She admits things are getting unmanageable and asks for your help.

Which of the following medications for OUD would be the easiest for Ms. G to tolerate today?

A. Buprenorphine/naloxone
B. Naltrexone
C. Methadone
D. Sublocade (injectable, long-acting buprenorphine)
E. All of the above except naltrexone

Fentanyl & novel drugs of abuse


Total number of drug overdose deaths due to any drug per year
Frequency
1500
1000
500
0
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
351
406
444
497
516
601
619
728
739
764
653
838
807
839
870
880
912
1,012
974
1,072
1,477
1913


Total number of drug overdose deaths due to synthetic opioids mentioning fentanyl per year
Frequency
400
200
0
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
5
6
13
9
8
18
17
30
29
49
38
51
38
46
56
41
49
81
102
222
540
900

- Overdose deaths from illicit fentanyls increased sharply in Midwest, South, West
- 40% of fentanyl-involved deaths included stimulants
- **56% of fatalities had no pulse upon arrival of first responders**
- Injection drug use in 25%
- **Non-injection in 27% of deaths**

Morbidity and Mortality Weekly Report

Trends in and Characteristics of Drug Overdose Deaths Involving Illicitly Manufactured Fentanyls — United States, 2019–2020

Julie O'Donnell, PhD[1]; Lauren J. Tanz, ScD[1]; R. Matt Gladden, PhD[1]; Nicole L. Davis, PhD[1]; Jessica Bitting, MS[1,2]

On December 14, 2021, this report was posted as an MMWR *Early Release on the* MMWR *website (https://www.cdc.gov/mmwr).*

During May 2020–April 2021, the estimated number of drug overdose deaths in the United States exceeded 100,000 over a 12-month period for the first time, with 64.0% of deaths involving synthetic opioids other than methadone (mainly illicitly manufactured fentanyls [IMFs], which include both fentanyl and illicit fentanyl analogs).* Introduced primarily as adulterants in or replacements for white powder heroin east of the Mississippi River (*1*), IMFs are now widespread in white powder heroin markets, increasingly pressed into counterfeit pills resembling oxycodone, alprazolam, or other prescription drugs, and are expanding into new markets, including in the western United States† (*2*). This report describes trends in overdose deaths involving IMFs (IMF-involved deaths) during July 2019–December 2020 (29 states and the District of Columbia [DC]), and characteristics of IMF-involved deaths during 2020 (39 states and DC) using data from CDC's State Unintentional Drug Overdose Reporting System (SUDORS). During July 2019–December 2020, IMF-involved deaths increased sharply in midwestern (33.1%), southern (64.7%), and western (93.9%) jurisdictions participating in SUDORS. Approximately four in 10 IMF-involved deaths also involved a stimulant. Highlighting the need for timely overdose response, 56.1% of decedents had no pulse when first responders arrived. Injection drug use was the most frequently reported individual route of drug use (24.5%), but evidence of snorting, smoking, or ingestion, but not injection drug use was found among 27.1% of decedents. Adapting and expanding overdose prevention, harm reduction, and response efforts is urgently needed to address the high potency (*3*), and various routes of use for IMFs. Enhanced treatment for substance use disorders is also needed to address the increased risk for overdose (*4*) and treatment complications (*5*) associated with using IMFs with stimulants.

Death certificate data, postmortem toxicology testing results, and death scene and witness findings from medical examiner or coroner reports are entered into SUDORS for unintentional drug overdose deaths and those of undetermined intent in 48 participating jurisdictions, providing comprehensive details about overdose deaths across jurisdictions not available from other data sources (*6*). IMFs§ were identified using toxicology and scene evidence (*7*). Monthly trends in IMF-involved deaths during July 1, 2019–December 31, 2020, were stratified by geographic region¶ among 30 jurisdictions with complete data (26 reported all overdose deaths in the jurisdiction and four reported deaths from subsets of counties).** Differences in the proportions of overdose deaths that involved IMFs (comparing July–December 2019 with July–December 2020) were assessed using z-tests, with p-values <0.05 considered statistically significant. Decedent demographics, overdose characteristics, and other drug co-involvement, were examined among 40 jurisdictions using 2020 data (35 reported all overdose deaths in the jurisdiction and five reported deaths from subsets of counties), stratified by region.†† Analyses were performed using SAS (version 9.4; SAS Institute). This activity was reviewed by CDC and conducted consistent with applicable federal law and CDC policy.§§

* https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm (Accessed November 29, 2021).
† https://www.dea.gov/sites/default/files/2021-02/DIR-008-21%202020%20National%20Drug%20Threat%20Assessment_WEB.pdf

§ Fentanyl was classified as likely illicitly manufactured using toxicology, scene, and witness evidence. In the absence of sufficient evidence to classify fentanyl as illicit or prescription (<12% of deaths involving fentanyl), fentanyl was classified as illicit because the vast majority of fentanyl overdose deaths involve illicit fentanyl. All fentanyl analogs except alfentanil, remifentanil, and sufentanil (which have legitimate human medical use) were included as illicitly manufactured fentanyls.
¶ U.S. Census regions were used to stratify jurisdictions into geographic regions: https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf. Not all jurisdictions in each region are included in analyses: trend analyses include eight of nine jurisdictions in the Northeast region, five of 12 jurisdictions in the Midwest region, eight of 17 jurisdictions in the South region, and nine of 13 jurisdictions in the West region; analyses of overdose characteristics include eight of nine jurisdictions in the Northeast region, nine of 12 jurisdictions in the Midwest region, 13 of 17 jurisdictions in the South region, and 10 of 13 jurisdictions in the West region.
** Jurisdictions included: Alaska, Arizona, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Illinois, Kansas, Maine, Massachusetts, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, and West Virginia. Illinois, Missouri, Pennsylvania, and Washington reported deaths from counties that accounted for ≥75% of drug overdose deaths in the state in 2017, per SUDORS funding requirements; all other jurisdictions reported deaths from the full jurisdiction.
†† Jurisdictions included: Alaska, Arizona, Arkansas, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, and West Virginia. Illinois, Louisiana, Missouri, Pennsylvania, and Washington reported deaths from counties that accounted for ≥75% of drug overdose deaths in the state in 2017, per SUDORS funding requirements; all other jurisdictions reported deaths from the full jurisdiction. Jurisdictions were included if data were available for January–June, July–December 2020, or both.
§§ 45 C.F.R. part 46.102(l)(2), 21 C.F.R. part 56; 42 U.S.C. Sect. 241(d); 5 U.S.C. Sect. 552a; 44 U.S.C. Sect. 3501 et seq.

O'Donnell J et al. MMWR 2021

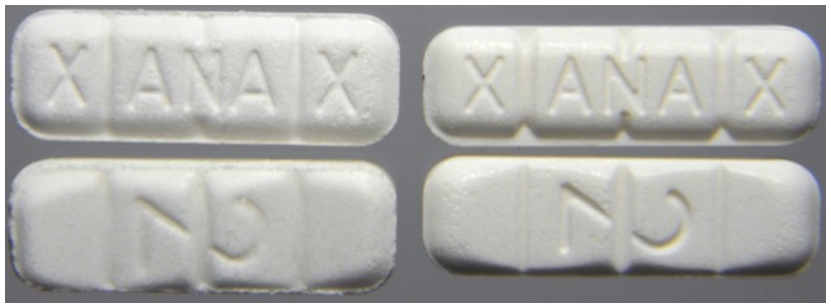
Witting vs unwitting fentanyl use

Intentional fentanyl users

- Individuals with OUD
- May prefer another opioid (heroin) but fentanyl more readily available
- Smoking common

Unintentional users

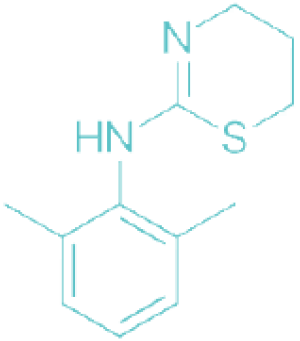
- Not regular users
- May be purchasing counterfeit alprazolam powder cocaine, or other drug



Twillman R et al, *JAMA Network Open* 2020

Xylazine

- Veterinary tranquilizer
- Alpha-2-adrenergic agonist
- Originally found in Puerto Rico, Philadelphia
- 28% of samples tested in MA 1/2022-6/2022
- May cause prolonged sedation
- Likely additional respiratory depressive effects
- May be contributing to deaths



What is Xylazine?

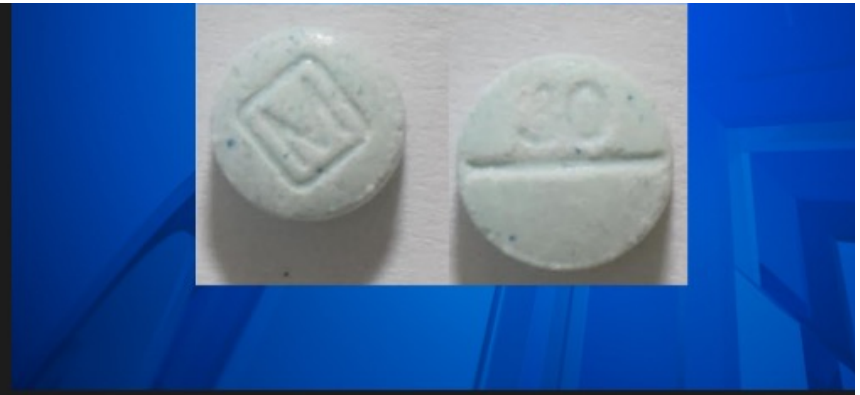
Xylazine is a veterinary anesthetic that's often used as a cut in street drugs. It's sometimes called tranq, tranq dope or sleep cut and people usually use xylazine unknowingly when their drugs are cut with it.

Benzimidazole ("Nitazene") opioids

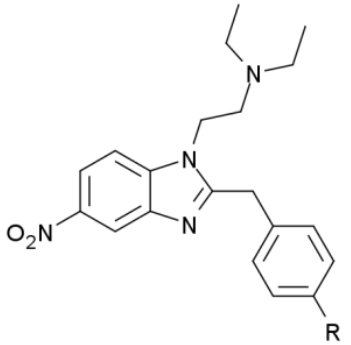
LOCAL NEWS

Opioid stronger than fentanyl found in Colorado

by: Dara Bitler
Posted: Jul 22, 2022 / 05:02 AM MDT
Updated: Jul 22, 2022 / 03:57 PM MDT



New synthetic opioid in Colorado (Denver Police Department)



- Up to 20x more potent that fentanyl
- Implicated in a few overdose deaths in CO

Benzimidazole ("Nitazene") opioids

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NPS DISCOVERY

Demographics

Case Type:
- Postmortem (n=8)

Age:
- Range: 20s to 50s

Date of Collection:
- January to April 2021

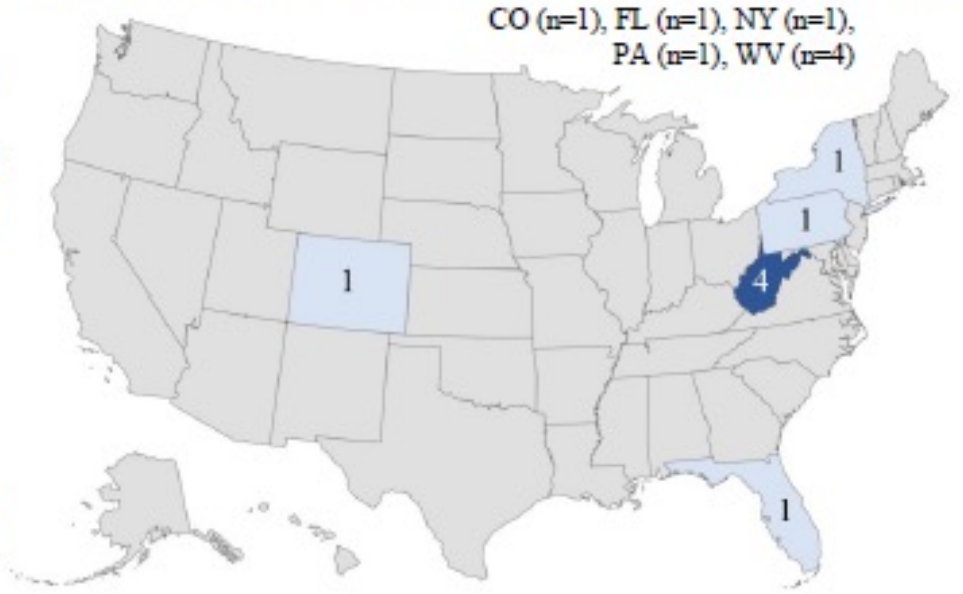
Other Notable Findings:
- NPS Benzodiazepines (n=7)
- Fentanyl (n=4)
- Methamphetamine (n=4)
- *Only Drug of Interest (n=1)

[N-Pyrrolidino Etonitazene]	
Case A	8.3 ng/mL*
Case B	2.4 ng/mL

June 2021

New High Potency Synthetic Opioid *N*-Pyrrolidino Etonitazene (Etonitazepyne) Linked to Overdoses Across United States

Geographical Distribution of N-Pyrrolidino Etonitazene



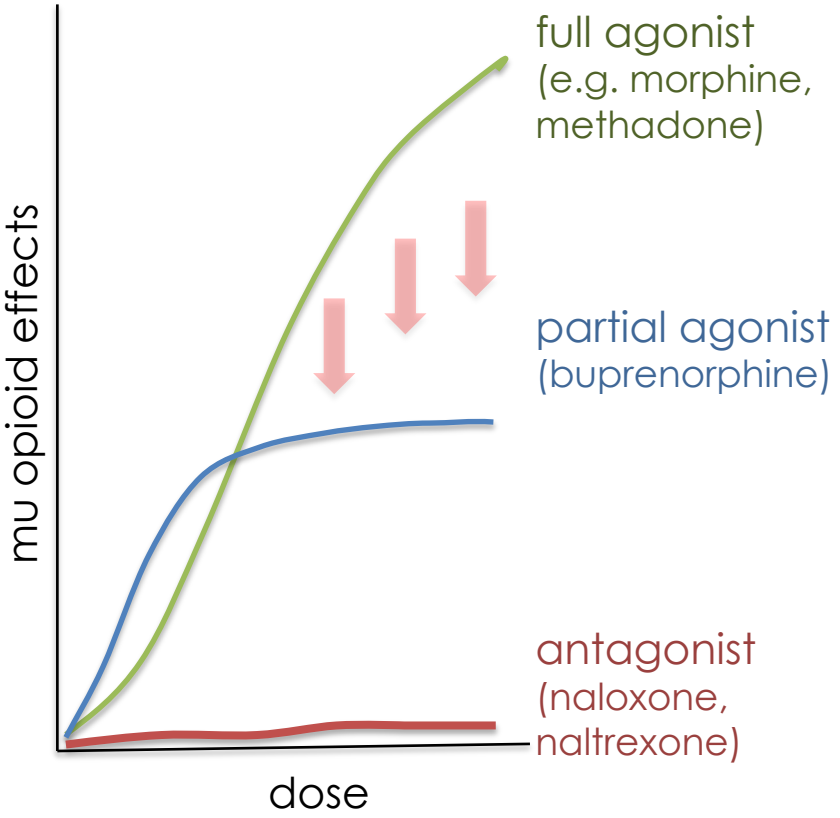
When do you test for fentanyl with urine toxicology testing?

A. If I have clinical suspicion
B. Only in patients who use illicit drugs
C. In all patients who get urine toxicology testing, including chronic opioid therapy
D. I don't test for fentanyl

OUD Treatment: fentanyl's impact

Precipitated withdrawal

- Fentanyl rapidly distributes into vascular spaces, lipophilic
- Behaves like long-acting opioid, biphasic elimination
- Withdrawal occurs when full agonist replaced by antagonist or partial agonist
- Can be **severe**



Buprenorphine micro-dosing

- Initiation of buprenorphine at very low doses while the patient continues to use his or her usual opioid
- The usual opioid is then discontinued after the patient reaches therapeutic level of buprenorphine
- Slowly replace the full agonist opioid with buprenorphine
- Prevent precipitated withdrawal
- May still require clonidine, other supportive treatments

Hammig R et al. *Subst Abuse Rehabil* 2016. doi: 10.2147/SAR.S109919.

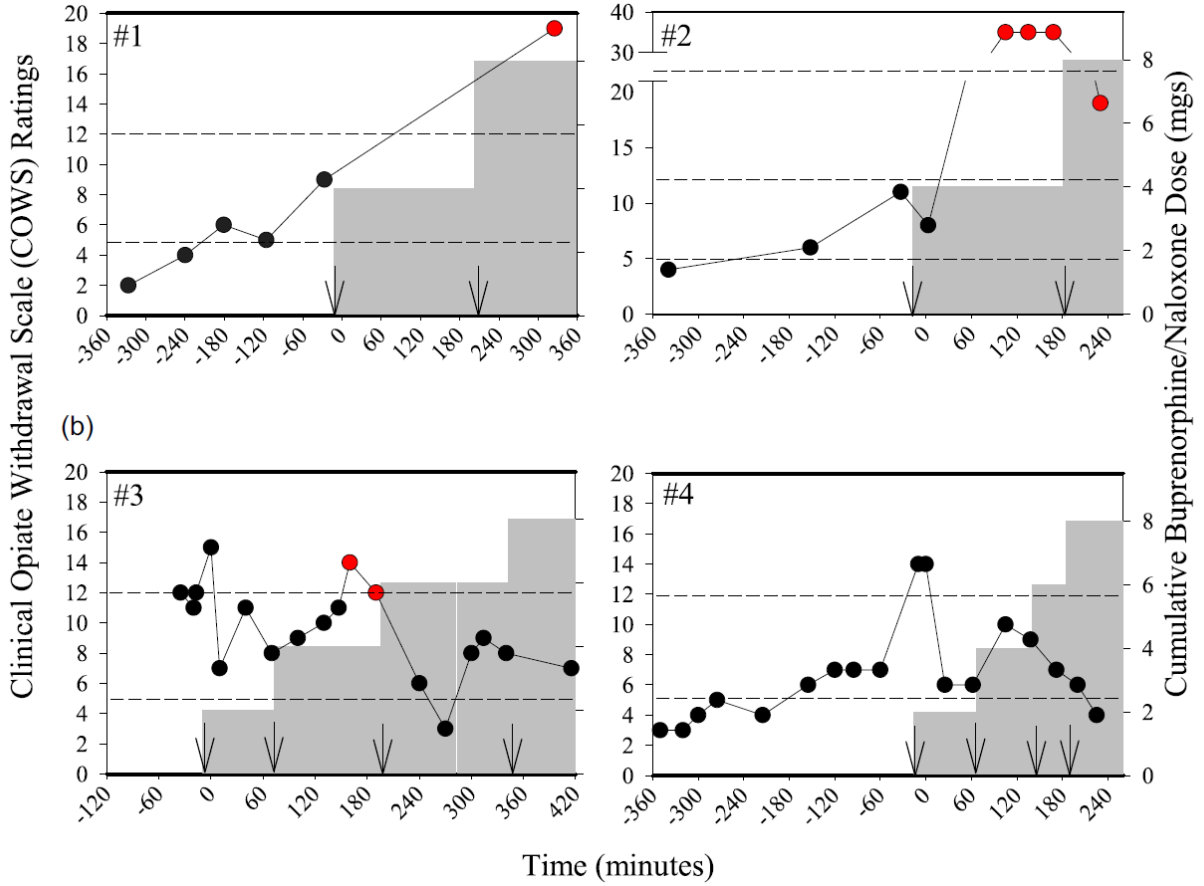
Changing approaches in the fentanyl era

- Fentanyl's potency and lipophilicity have necessitated alternative buprenorphine induction strategies
- Low-dose inductions or micro-dosing inductions are a viable alternative to full-dose inductions
  - Require a lot of medication and provider support and reassurance
- High-dose inductions may also be an alternative approach
- More evidence is needed

Randhawa PA. *CMAJ* 2020
Becker WC et al. *Annal Intern Med* 2020
Herring A, et al. *JAMA Netw Open* 2021

Fentanyl to buprenorphine induction

- Wait longer (36-48 hours minimum, sometimes much longer)
- Higher COWS (≥12)
- Start lower (1 mg – 2 mg)
- More doses
- Pause for mild-mod withdrawal
- Accelerate past point of commitment



Vasrhneya NB et al. *J Addict Med* 2021
Atoine D et al. *Am J Addict* 2021

Sublocade

- Long-acting injectable buprenorphine for intra-abdominal SC injection
- Usual dose: 300 mg/month x 2, then 100 mg/month
- Full receptor occupancy after 2nd shot
- Consider for adherence, diversion concerns, patient preference, concurrent pain
- Being explored in conjunction with rapid macro-induction onto buprenorphine/nal in patients who use fentanyl

Coe MA et al. *J Addict Med* 2019
Compton W, and Volkow N. *JAMA Netw Open* 2021

Drug Checking

- Increasingly common in U.S.
- Utilizes test strip designed for urine
- High sensitivity and specificity
- Positive test associated with 5x likelihood of engaging in harm reduction behaviors
- Acceptable to PWID

Peiper et al, *J Drug Policy* 2019

Contents lists available at ScienceDirect

Addictive Behaviors

journal homepage: www.elsevier.com/locate/addictbeh

A fentanyl test strip intervention to reduce overdose risk among female sex workers who use drugs in Baltimore: Results from a pilot study

Ju Nyeong Park[a,*], Catherine Tomko[a], Bradley E. Silberzahn[a], Katherine Haney[a], Brandon D.L. Marshall[b], Susan G. Sherman[a]

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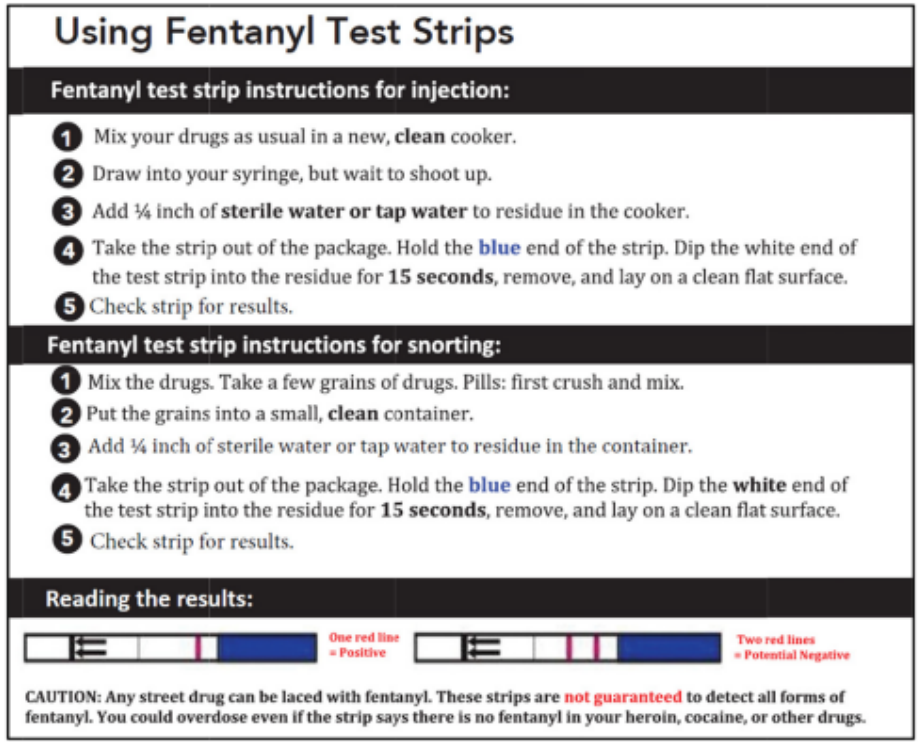


Using Fentanyl Test Strips

Fentanyl test strip instructions for injection:

1. Mix your drugs as usual in a new, **clean** cooker.
2. Draw into your syringe, but wait to shoot up.
3. Add ¼ inch of **sterile water or tap water** to residue in the cooker.
4. Take the strip out of the package. Hold the **blue** end of the strip. Dip the white end of the test strip into the residue for **15 seconds**, remove, and lay on a clean flat surface.
5. Check strip for results.

Fentanyl test strip instructions for snorting:

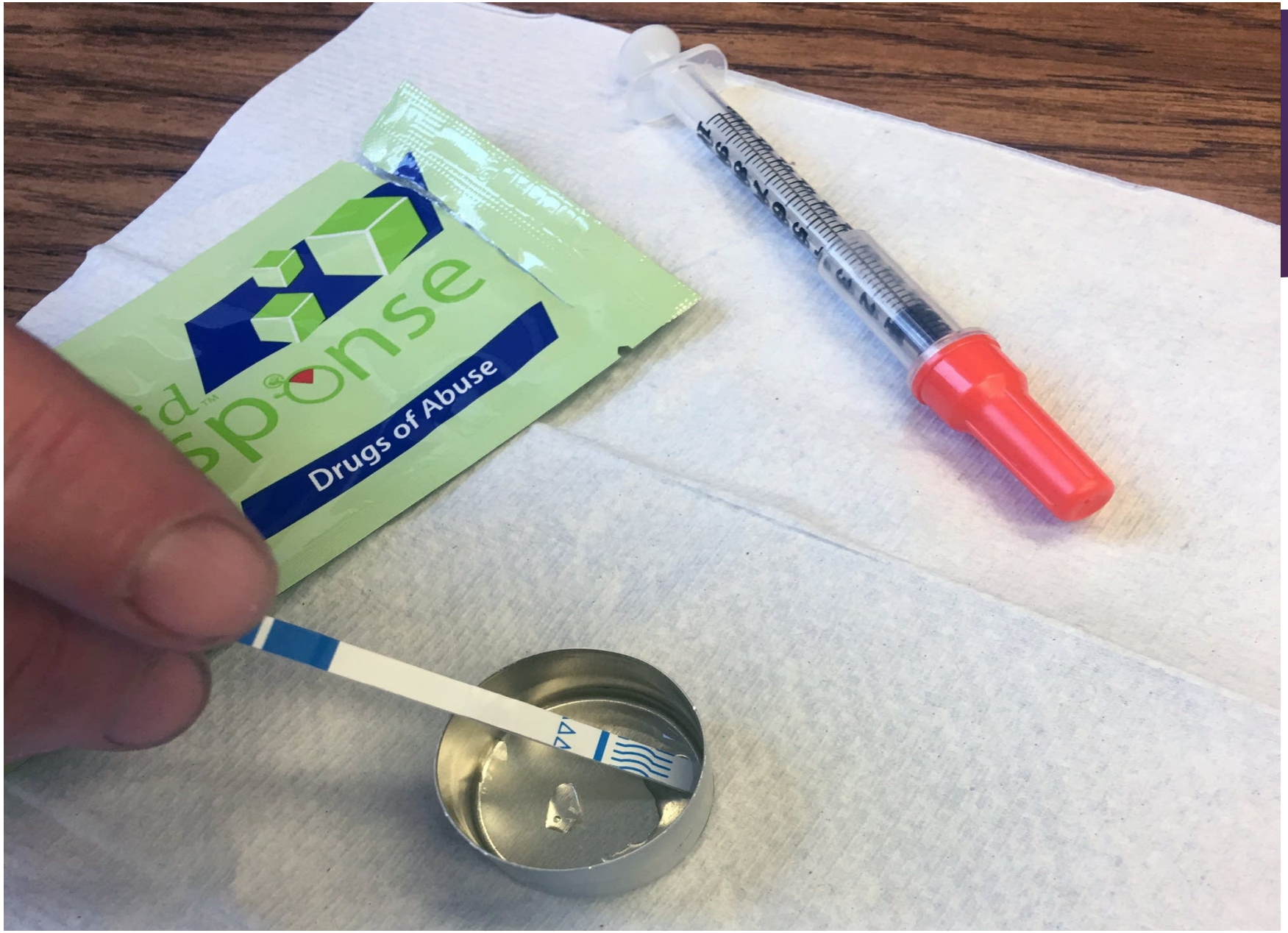
1. Mix the drugs. Take a few grains of drugs. Pills: first crush and mix.
2. Put the grains into a small, **clean** container.
3. Add ¼ inch of sterile water or tap water to residue in the container.
4. Take the strip out of the package. Hold the **blue** end of the strip. Dip the **white** end of the test strip into the residue for **15 seconds**, remove, and lay on a clean flat surface.
5. Check strip for results.

Reading the results:

One red line = Positive

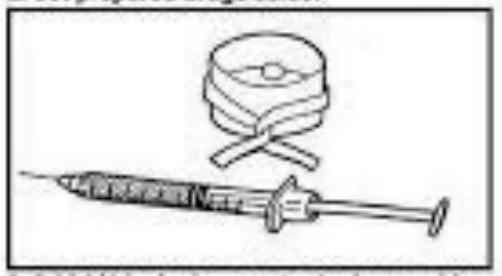
Two red lines = Potential Negative

CAUTION: Any street drug can be laced with fentanyl. These strips are not guaranteed to detect all forms of fentanyl. You could overdose even if the strip says there is no fentanyl in your heroin, cocaine, or other drugs.

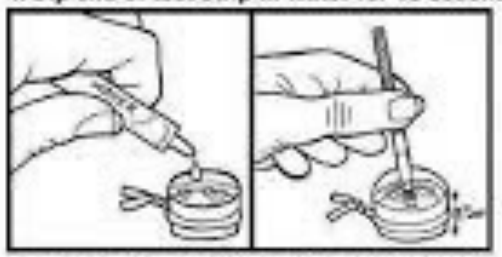


Directions

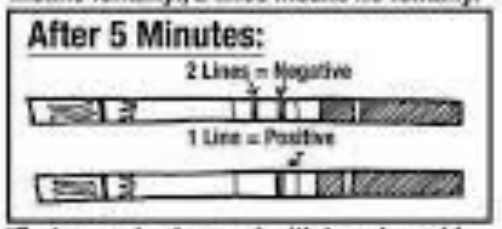
1. Prepare drugs in a fresh, clean cooker
2. Set prepared drugs aside:



3. Add 1/4 inch clean water to drug residue
4. Dip end of test strip in water for 15 seconds



5. Check the strip after 5 minutes. One line means fentanyl, 2 lines means no fentanyl



*Test may also be used with baggie residue.
*Check any street drug, benzos, crack, meth, etc, as well as all opioids.
*If test doesn't result in 1 or 2 lines it's invalid

Ms. G, continued

- At the end of last visit, you referred her to an outpatient addiction treatment facility
- She misses her intake appointment, deciding she just needs to find a new pain doctor
- She tests a portion of a street oxycodone tablet with a fentanyl test strip supplied by a local harm reduction agency; the result is positive
- She undergoes UDT at the office of a pain specialist
- Her test is positive for fentanyl and methamphetamine

ARS 5: Which of the following medications show efficacy in treating methamphetamine use disorder?

A. Naltrexone
B. Amphetamine salts
C. Mirtazapine
D. Bupropion plus naltrexone

Methamphetamine Use Disorder

Methamphetamine trends 2015-2019

- Psychostimulant overdose deaths (other than cocaine) increased 180%
- MA use rates increased 43%
- Frequent MA use increased 66%

Han B et al. *JAMA Psychiatry* 2021

Stimulants

- Modafinil 200-400 mg daily
  - 5 studies/n = 642
  - OR of use: 0.86 (NS)
- Bupropion 150 mg twice daily
  - 6 studies/n = 151
  - OR of use: 1.12 (NS)
- Methylphenidate 54-180 mg daily
- Dextroamphetamine 60-110 mg daily
- Most trials short: 8-12 weeks

- "No statistically significant benefit to any psychostimulant on frequency of use, sustained abstinence, or retention in treatment."

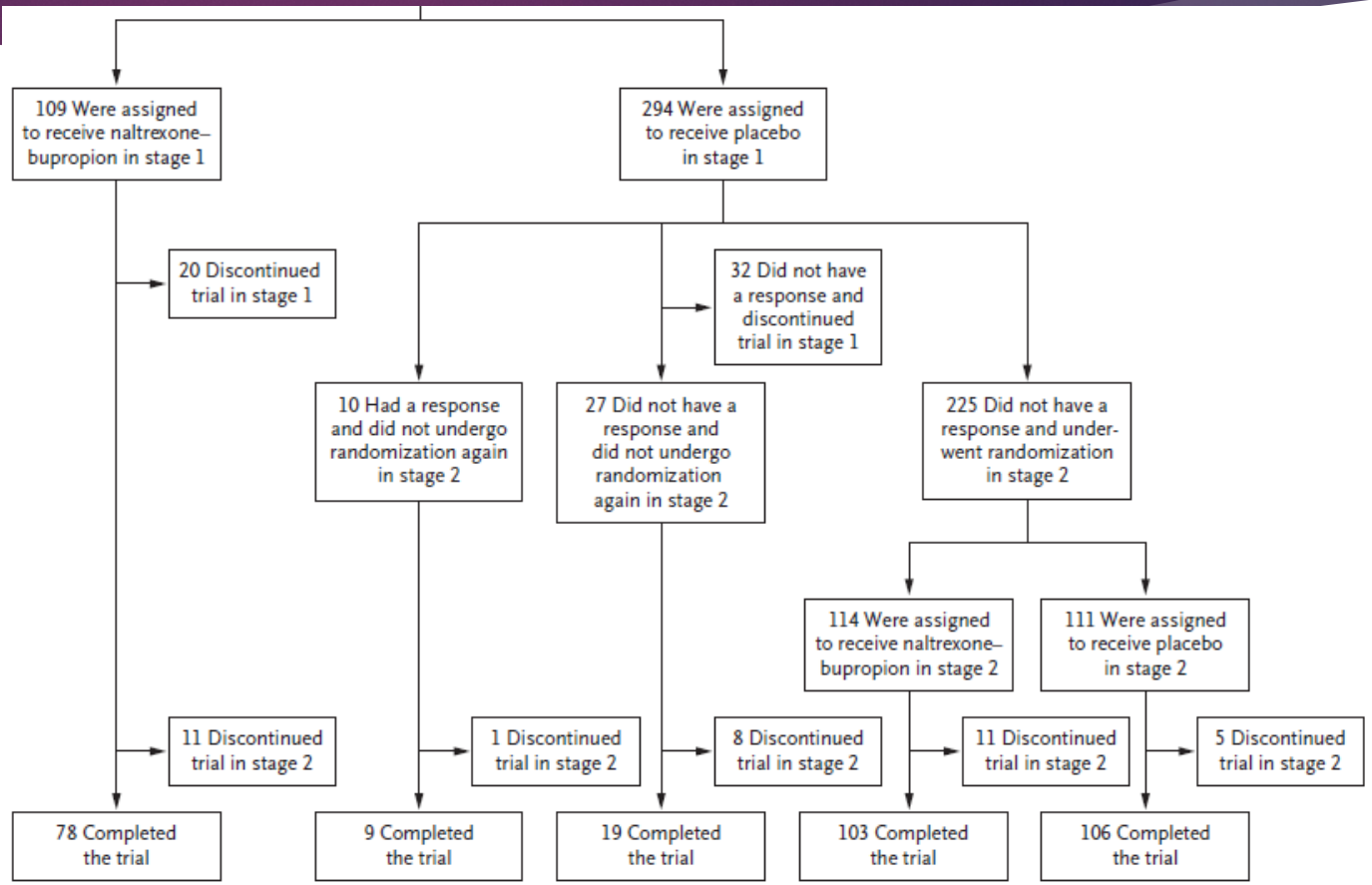
- Need better delineation of reasonable outcomes (is reduced craving enough?

Chan B et al. *Addiction* 2019
Bhatt M, et al. *Systematic Reviews* 2016
Longo M et al. *Addiction* 2010
Galloway GP et al. *Clin Pharmacol Therapeutics* 2011

Tiihonen J et al. *Am J Psychiatry* 2007
Miles SW et al. *Addiction* 2013
Ling W et al. *Addiction* 2014
Rezaei F et al. *Daru* 2015

Ready for prime time: Naltrexone + Bupropion: ADAPT-2

- Sequential parallel comparison
- 12-week design, adults 18-65
  - 2 x 6-week blocks
- 932 screened for participation
  - 403 randomized into Stage 1



Trivedi MH, et al. *NEJM* 2021

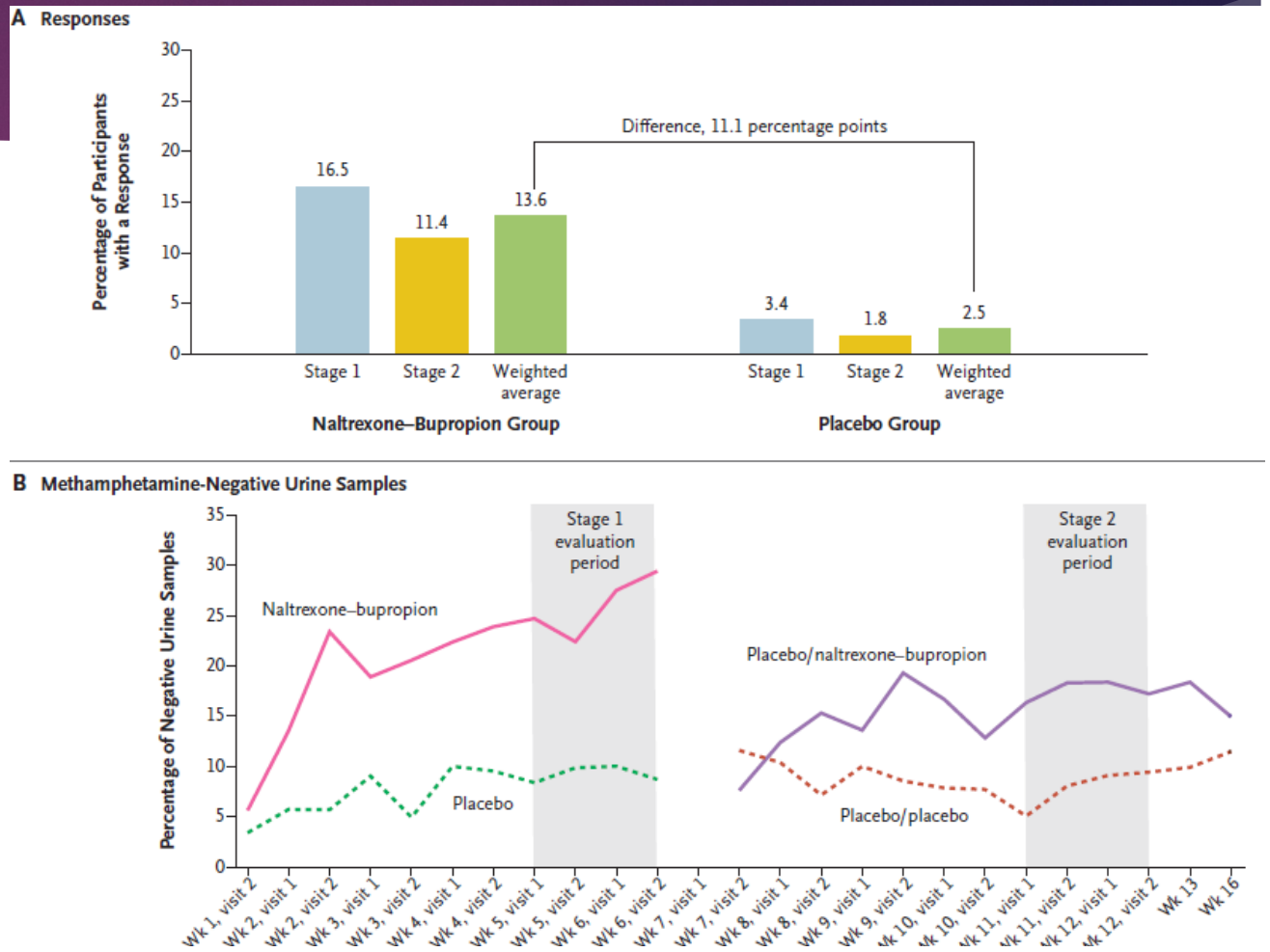
Naltrexone + Bupropion: ADAPT-2

Primary Outcome

- % with at least 3 of 4 negative urine tests for MA at end of Stage 1 (weeks 5-6) or Stage 2 (weeks 11-12)

Results

- Stage 1: 16.5% vs. 3.4%
- Stage 2: 11.4% vs. 1.8%
- Overall weighted: ***13.6%*** vs. ***2.5% (absolute diff: 11.1%)***



Trivedi MH, et al. *NEJM* 2021

ADAPT-2

Additional Findings

- Pre-spec analysis: pts who provided all 4 final UDTs: **18.7% difference**
- Secondary outcomes:
  - Total percentage of **MA-negative UDTs**: **-6.8%**
  - **Craving** (VAS, 0-100): **-9.7 points**
  - **Treatment Effectiveness** Assessment: **+4.0 points**
- No difference in AEs

Take-Home Points

- Well-designed, enriched cohort (less placebo effect)
- Heavy-using cohort (mean use: 27 of past 30 days)
- Low dropout
- Short duration
- **NNT = 9**

Trivedi MH, et al. *NEJM* 2021

Inherited Patients Taking Opioids for Chronic Pain — Considerations for Primary Care

Phillip O. Coffin, M.D., and Antje M. Barreveld, M.D.

Summary

- 2021: 28 Lags Medical Center pain clinics abruptly close
- 28,000 patients without pain management
- Created abandonment crisis of "legacy patients
- Longer duration of opioid therapy, more abrupt tapers associated with: ↑ risk of illicit opioid use, ↑ opioid-related ED visits and hospitalizations, ↑ rates of mental health crisis and overdose events, and ↑ mortality from overdose and suicide

Inherited Patients Taking Opioids for Chronic Pain — Considerations for Primary Care

Phillip O. Coffin, M.D., and Antje M. Barreveld, M.D.

Take Aways

- When inheriting legacy patients:
  - Review previous records, develop treatment plan that slowly adjusts to your practice
  - Avoid big, radical, rapid changes
  - Provide therapeutic bridge until a plan can be determined
  - Develop individualized, consensual care plan with patient
  - Assess for OUD and transition to buprenorphine if needed
  - Document, document, document!

Opioid tapering risks

- Illicit opioid use, including heroin
- Overdose, opioid-related hospitalizations
- Mental health crisis
- Suicide
- Opioid use disorder diagnosis

JAMA Network Open

Original Investigation | Pharmacy and Clinical Pharmacology

Long-term Risk of Overdose or Mental Health Crisis After Opioid Dose Tapering

Joshua J. Fenton, MD, MPH; Elizabeth Magnan, MD, PhD; Irakis Erik Tseregounis, PhD; Guibo Xing, PhD; Alicia L. Agnoli, MD, MPH, MHS; Daniel J. Tancredi, PhD

JAMA Network Open

Original Investigation | Public Health

Association of Opioid Dose Reduction With Opioid Overdose and Opioid Use Disorder Among Patients Receiving High-Dose, Long-term Opioid Therapy in North Carolina

Bethany L. DiPrete, PhD, MSGH; Shabbar I. Ranapurwala, PhD, MPH; Courtney N. Maierhofer, MPH; Naoko Fulcher, MS; Paul R. Chelminski, MD, MPH; Christopher L. Ringwalt, DrPH; Timothy J. Ives, PharmD, MPH; Nabarun Dasgupta, PhD, MPH; Vivian F. Go, PhD; Brian W. Pence, PhD

Kertesz SG, Varley AL. *JAMA Network Open* 2022
Coffin PO, Barreveld AM. *NEJM* 2022

Recommendations

- Without evidence of direct harm, tapers should be undertaken collaboratively and voluntarily
- If patient is being directly harmed, document this!
- Do not aim tapers at a pre-determined threshold
- Counsel (consent?) patients about opioid tapering risk
- Diagnose and treat OUD without judgment or stigma

Kertesz SG, Varley AL. *JAMA Network Open* 2022
Coffin PO, Barreveld AM. *NEJM* 2022

Summary

- Consider universal screening for alcohol and substances, and get paid for it
- Limit *new* benzodiazepine prescribing to 1st line indications, for short durations. Monitor like opioids & discuss patient goal and weaning options
- Add fentanyl to your routine urine testing strategy, including for higher risk patients on chronic opioid therapy. Recognize pitfalls of urine toxicology interpretation
- Adjust buprenorphine induction strategy in response to fentanyl
- Look out for novel opioids and adulterants (and prescribe naloxone)
- Recommend or prescribe buproprion + depot naltrexone for patients with methamphetamine use disorder

End

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