Inpatient Alcohol and Drug Detoxification

Presenters:

Robert Moore, MD, MPH
Chief Medical Officer
Partnership HealthPlan of California

Tauheed Zaman, MD
Medical Director, Addiction Consult and Opioid Safety Teams,
San Francisco VA Medical Center
Assistant Clinical Professor,
University of California, San Francisco

January 11, 2017

Agenda

12:30-12:35 p.m.
Welcome/Housekeeping Rules
Lennie-Jane Utanes, Health Services Coordinator

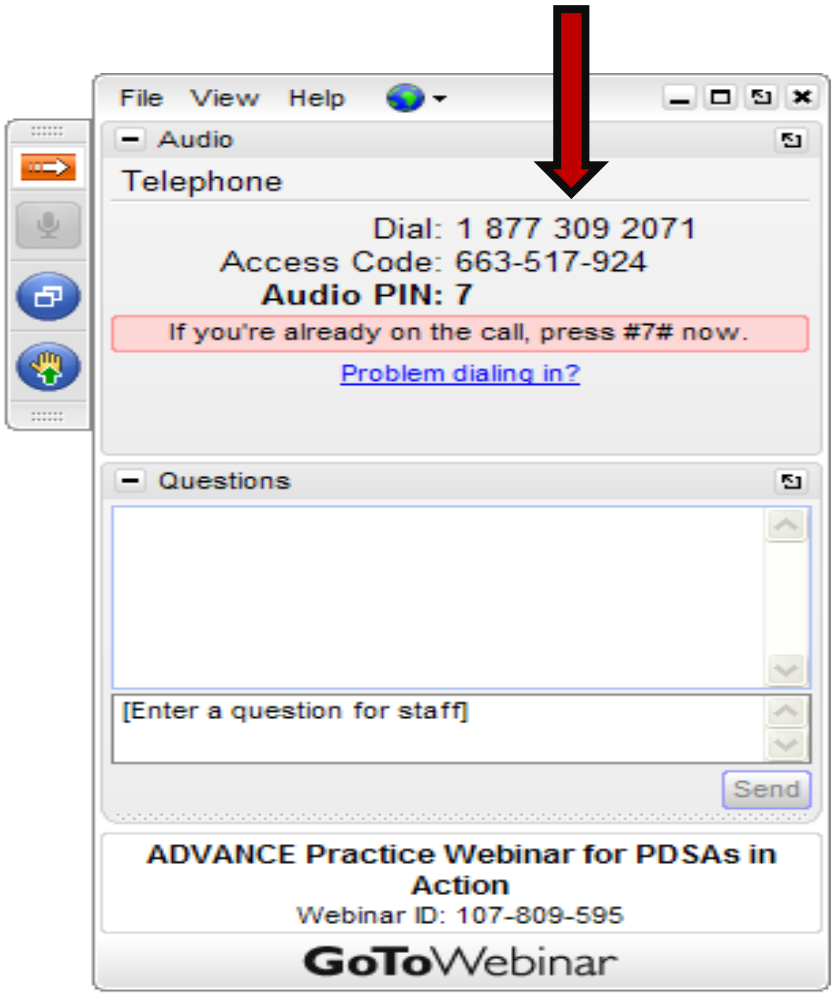
12:35-12:40 p.m.
Introduction
Robert Moore, MD, MPH, Chief Medical Officer

12:40-1:25 p.m.
Inpatient Alcohol and Drug Detoxification
Tauheed Zaman, MD
Medical Director, Addiction Consult and Opioid Safety Teams, San Francisco VA Medical Center
Assistant Clinical Professor, University of California, San Francisco

1:25 to 1:30 p.m.
Q&A
Dr. Zaman & Dr. Moore

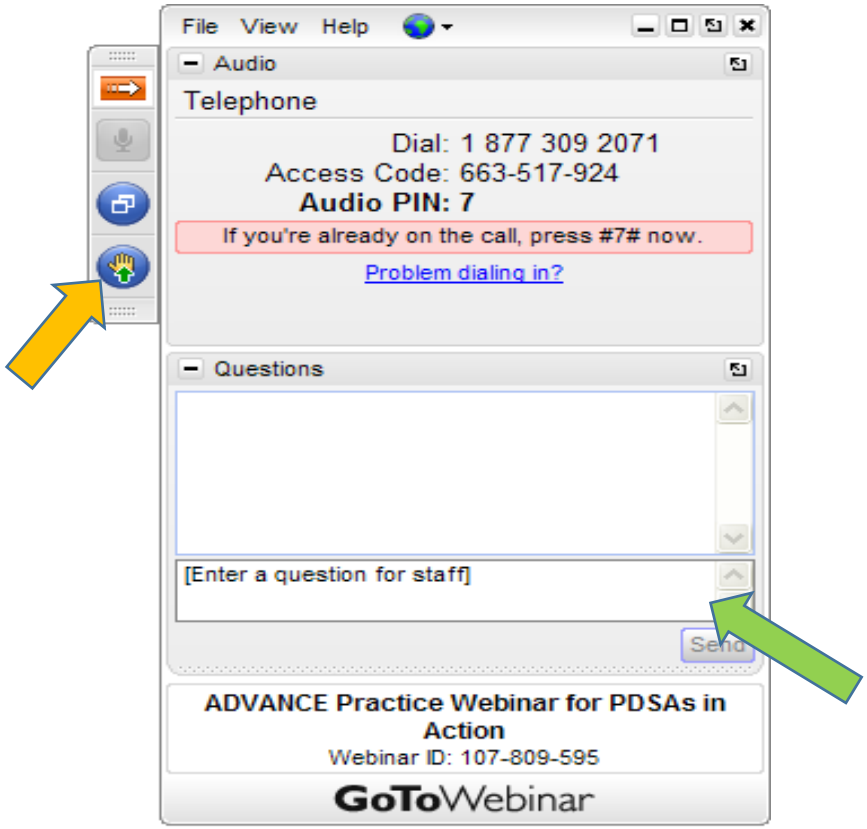
PARTNERSHIP HEALTHPLAN of CALIFORNIA

Webinar Instructions



- To avoid echoes and feedback, we request that you **use the telephone** *instead* of your computer microphone for listening/talking during the webinar.

Webinar Instructions



- All participants have been muted to eliminate any possible noise interference/distraction.

- If you have a question or would like to share your comments during the webinar, **please type your question in the "question" box or click on the "raised hand" icon.**

Conflict of Interest

- All presenters have signed a conflict of interest form and have declared that there is no conflict of interest and nothing to disclose for this presentation.

Introduction

Robert Moore, MD MPH

Chief Medical Officer, PHC

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Drug/Alcohol Withdrawal: Medi-Cal Coverage in Different Settings

- Inpatient
  - State Medi-Cal coverage if only for drug/alcohol withdrawal
  - PHC if primarily medical diagnosis with co-existent withdrawal
- Outpatient: coming soon (counties will be responsible; PHC regional model possible)
  - Residential
  - Office/Home-based

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Guest Speaker

Tauheed Zaman, MD

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Q&A

Contact Information

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INPATIENT ALCOHOL AND DRUG DETOXIFICATION

Tauheed Zaman, MD

Medical Director, Addiction Consult and Opioid Safety Teams,

San Francisco VA Medical Center.

Assistant Clinical Professor,

University of California, San Francisco.

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WHY COVER THIS TOPIC?

- Effective detoxification important for immediate patient outcomes.
- Inpatient detox → opportunity for lasting impact on trajectory of illness.

OUTLINE

I. ALCOHOL:

- History and screening
- Acute management
- Alcohol pharmacotherapy

II. OPIOIDS:

- History
- Acute management: supportive
- Acute management: Medication-assisted treatment (MAT)
- Chronic pain, overdose prevention

III. Other substances of concern


DELIRIUM
tremens
FAMILY BREWERY
HUYGHE
SINCE 1654
1 PINT 9.4 FL.OZ.

ALCOHOL

HISTORY OF USE AND WITHDRAWAL

If admitted explicitly for alcohol detox:

1. Time of last drink
2. Pattern/volume of drinking
3. History of withdrawal (seizures/delirium tremens)
4. Concurrent substances
5. Concurrent medical issues (particularly cardiac, GI)

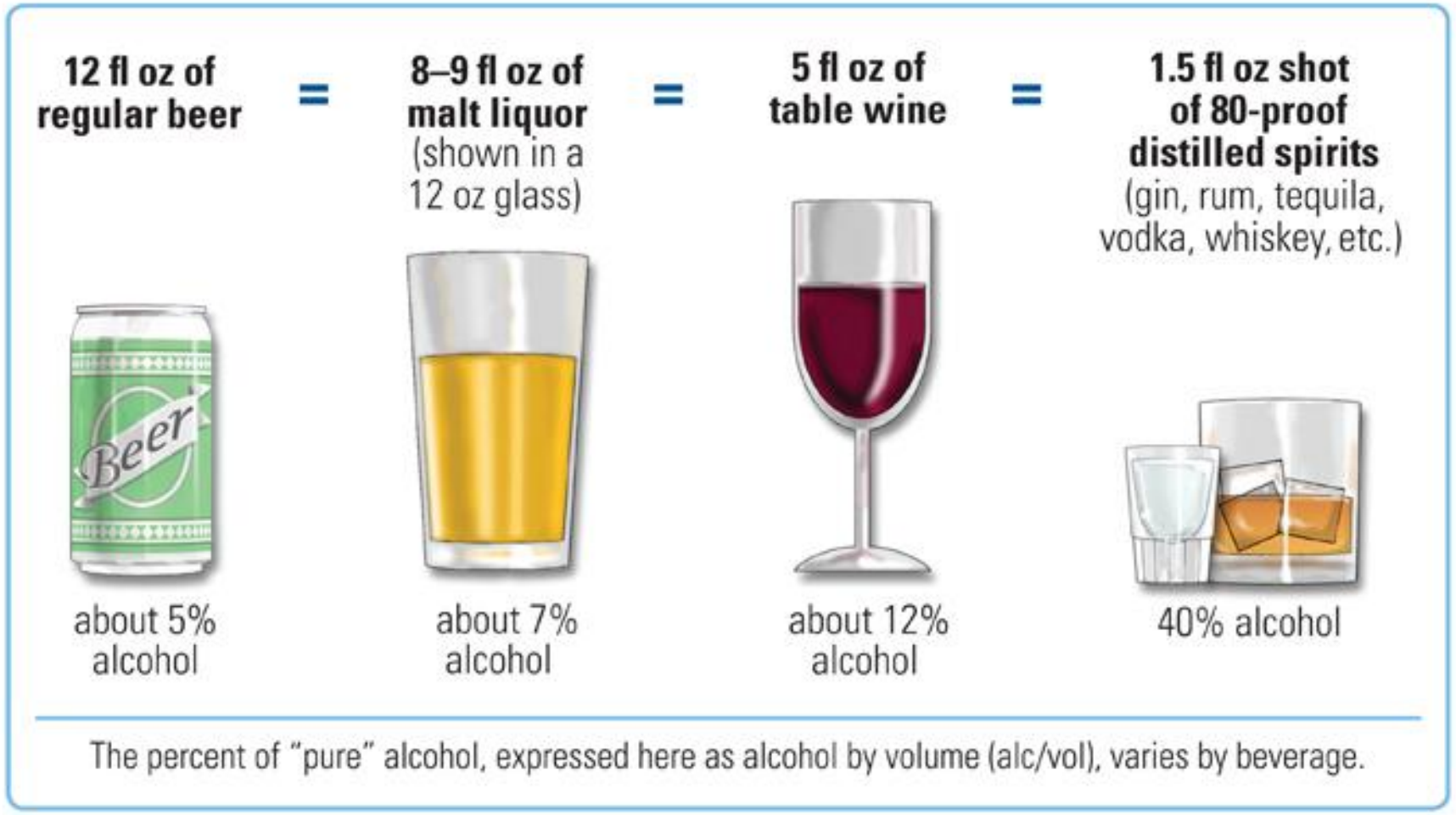
WHAT IF THE PATIENT IS ADMITTED FOR SOMETHING ELSE?

Answer: Know safe drinking limits, use screening tools

SAFE DRINKING LIMITS

NIAAA

WHAT IS A STANDARD DRINK?



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SCREENING: CAGE-AID

- C- Have you ever felt you needed to cut down on your drinking or drug use?
- A- Have people annoyed you by criticizing your drinking or drug use?
- G- Have you ever felt guilty about your drinking or drug use?
- E- Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover? (eye opener)

- One or more YES = Sensitivity 79%, Specificity: 77%

SAMHSA

SCREENING: AUDIT-C

- **1. How often do you have a drink containing alcohol?**
  - a. Never
  - b. Monthly or less
  - c. 2-4 times a month
  - d. 2-3 times a week
  - e. 4 or more times a week
- **2. How many standard drinks containing alcohol do you have on a typical day?**
  - a. 1 or 2
  - b. 3 or 4
  - c. 5 or 6
  - d. 7 to 9
  - e. 10 or more
- **3. How often do you have six or more drinks on one occasion?**
  - a. Never
  - b. Less than monthly
  - c. Monthly
  - d. Weekly
  - e. Daily or almost daily

SAMHSA

SCREENING: AUDIT-C

- For identifying its with heavy/hazardous drinking and/or active Diagnostic and Statistical Manual (DSM)-based alcohol abuse or dependence:

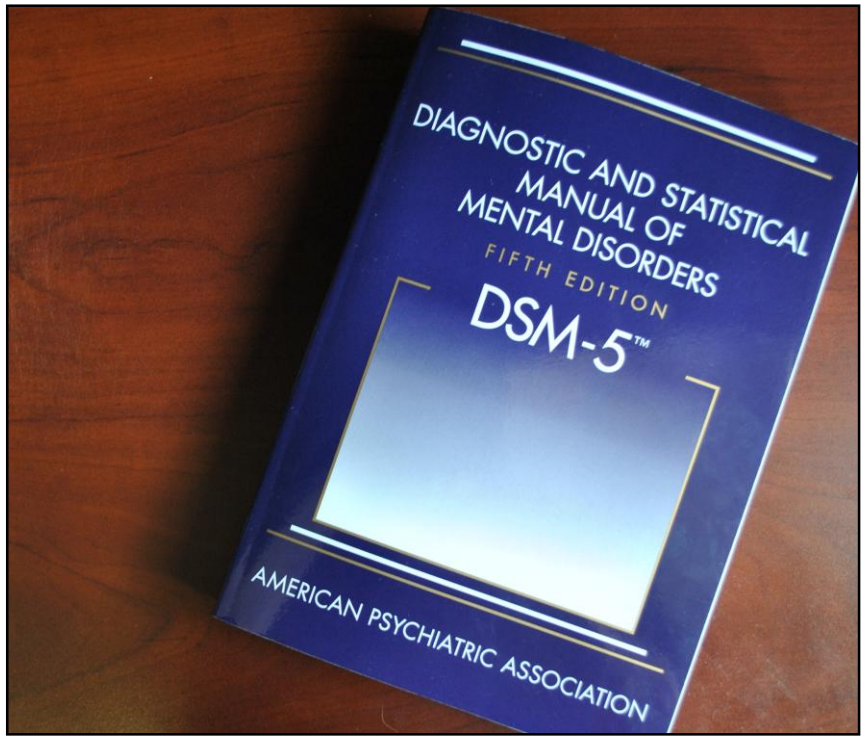
- **MEN (4+)**
- **Sensitivity 86%, Specificity 72%**

- **WOMEN (3+)**
- **Sensitivity 66%, Specificity 94%**

Bush 1998, Bradley 2003.

DSM 5- ALCOHOL USE DISORDER (AUD)

1. Alcohol is often taken in larger amounts or over a longer period than was intended.
2. Persistent desire or unsuccessful efforts to cut down or control alcohol use.
3. Great deal of time is spent to obtain, use, recover.
4. Craving, or a strong desire or urge to use alcohol.
5. Failure to fulfill major role obligations at work, school, or home.
6. Persistent or recurrent social or interpersonal problems.
7. Social, occupational, recreational activities given up / reduced.
8. Use in situations in which it is physically hazardous.
9. Persistent or recurrent physical or psychological problems.
10. Tolerance.
11. Withdrawal.

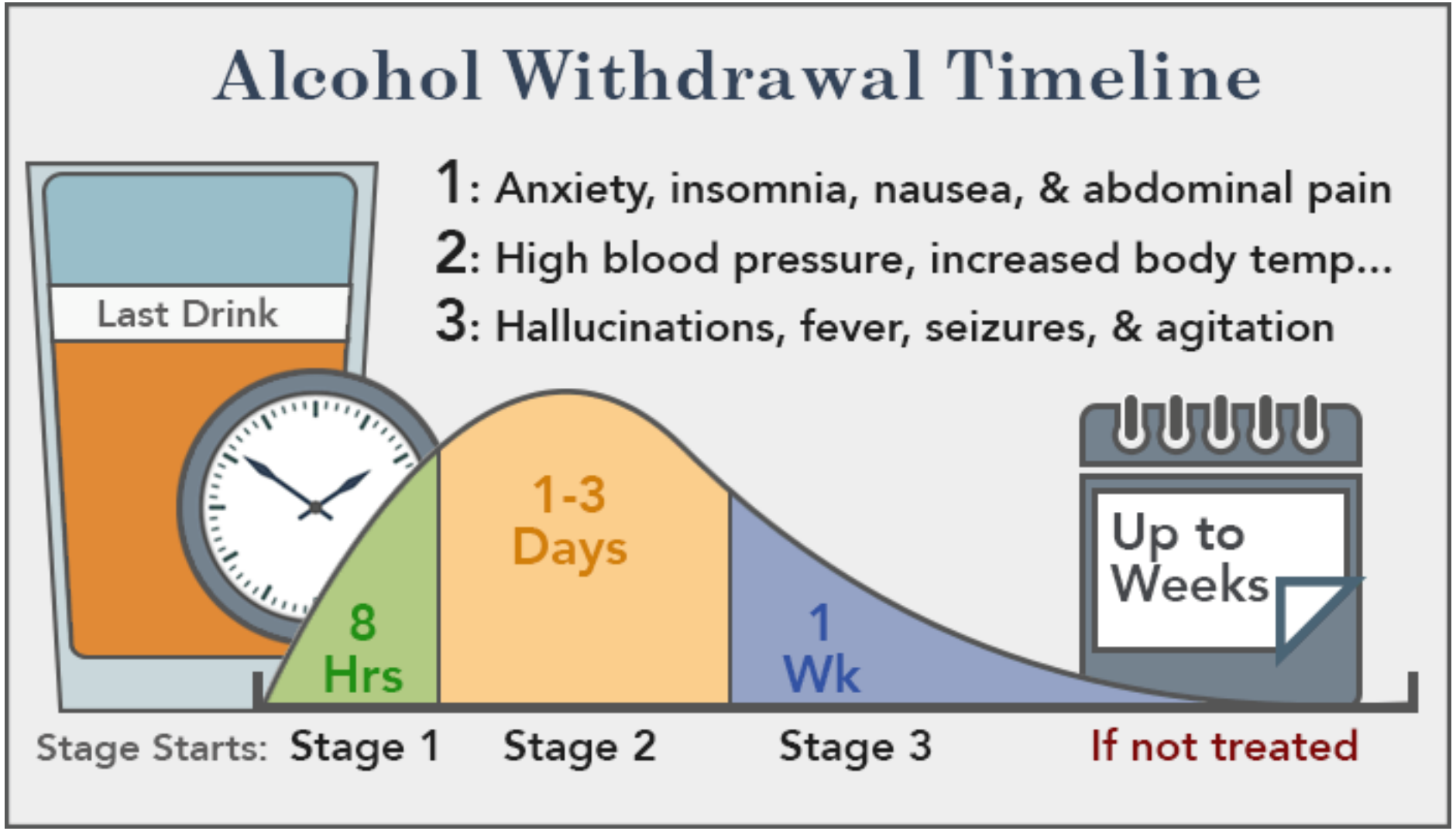


DSM-5

ALCOHOL DETOX: STAGES OF WITHDRAWAL

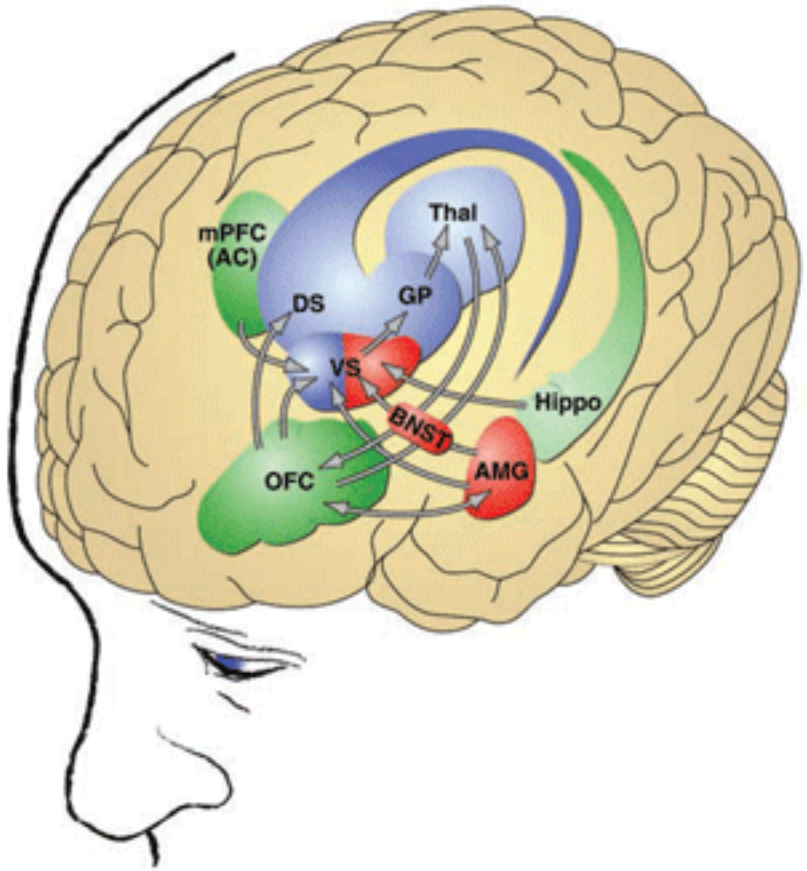
STAGE	*SYMPTOMS*
1 (mild)	Anxiety, tremor, insomnia, headache, palpitations, gastrointestinal disturbances
2 (mod)	Mild symptoms and diaphoresis, increased systolic blood pressure, tachypnea, tachycardia, confusion, mild hyperthermia
3 (severe)	Moderate symptoms and disorientation, impaired attention (delirium tremens), visual and/or auditory hallucinations, seizures

Adapted from Herbert, Am Fam Physician 2013



Herbert, Am Fam Physician 2013

DETOX: NEUROBIOLOGY



Binge/intoxication

- ventral striatum (VS), including nucleus accumbens
  euphoria, reward
- dorsal striatum (DS)
  habits, perseveration
- global pallidus (GP)
  habits, perseveration
- thalamus (Thal)
  habits, perseveration

Withdrawal/negative affect

- amygdala (AMG), bed nucleus of the stria terminalis (BNST), together also known as the "extended amygdala"
  malaise, dysphoria, negative emotional states
- ventral striatum (VS)
  decreased reward

Preoccupation/anticipation

- anterior cingulate (AC)
- prefrontal cortex (mPFC), orbitofrontal cortex (OFC)
  subjective effects of craving, executive function
- basolateral nucleus of the amygdala
  conditioned cues
- hippocampus (Hippo)
  conditioned contextual cues

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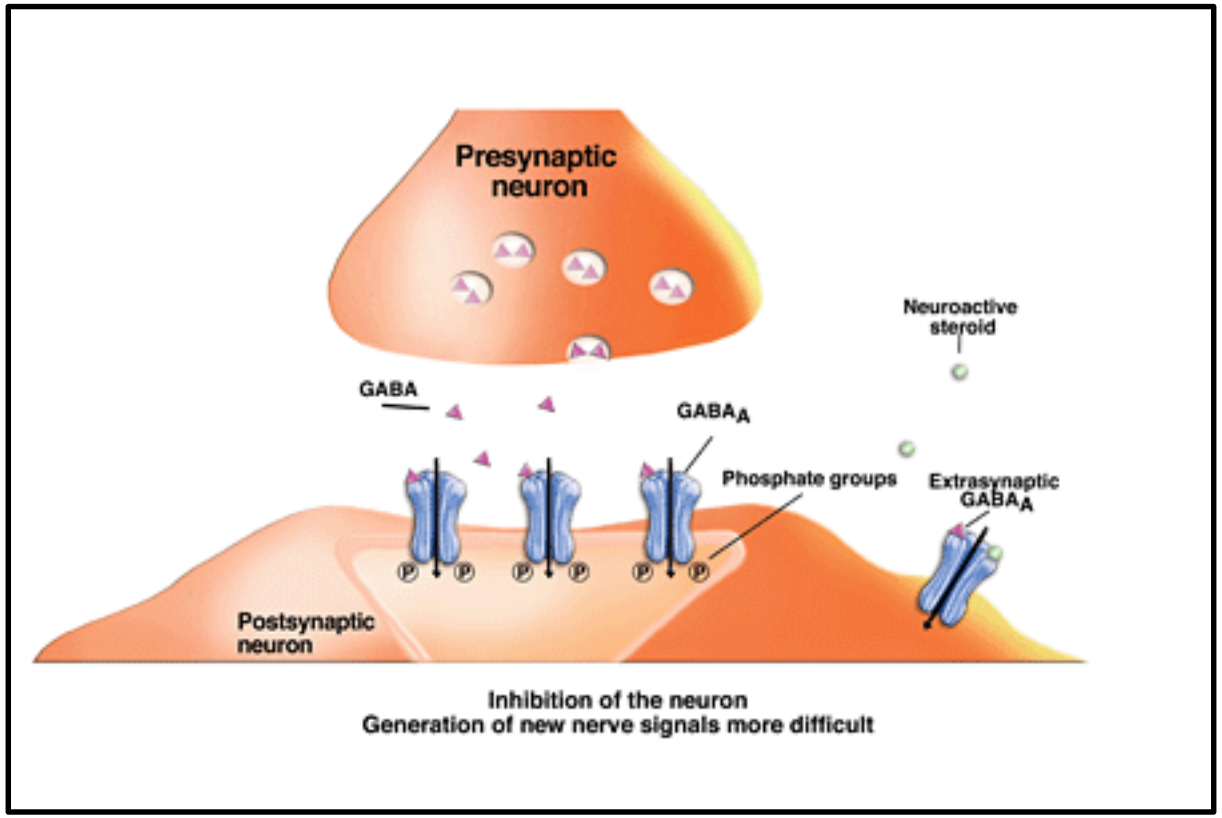
ALCOHOL DETOX: NEUROBIOLOGY



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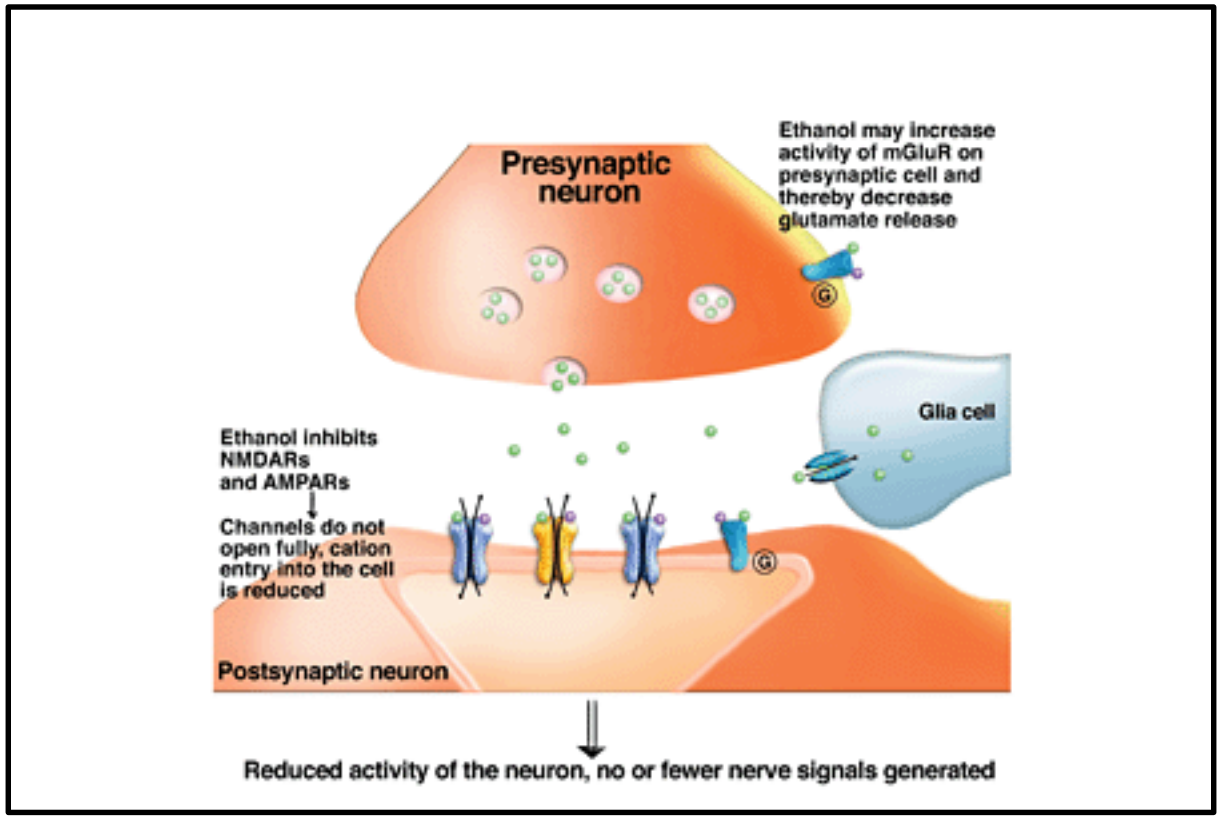

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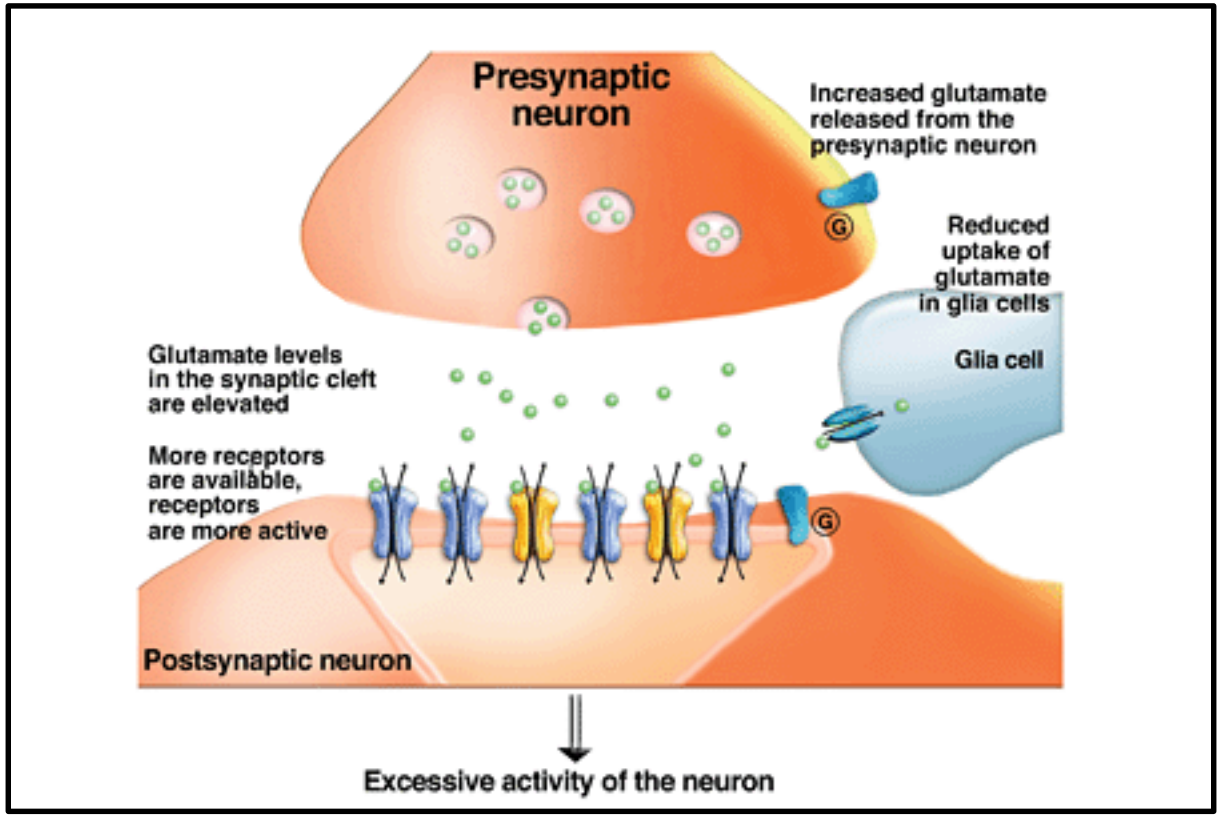

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DETOX: CIWA-AR

Ten-item scale used to measure alcohol withdrawal:

- 1. N/V
- 2. Tremors
- 3. Sweats
- 4. Anxiety
- 5. Agitation
- 6. Tactile disturbance
- 7. Auditory disturbance
- 8. Visual disturbance
- 9. Headache/Fullness
- 10. Orientation and Clouding of Sensorium

SAMHSA Tip 45

DETOX: MANAGEMENT

Mainstay is Benzodiazepine (GABA):

- Most common: Lorazepam, Chlordiazepoxide, Diazepam
- Safe for liver: Lorazepam, Oxazepam, Temazepam (LOT)

Potentially helpful:

- Gabapentin
- Valproic acid
- Carbamazepine

Also give: Thiamine (Wernicke-Korsakoff)

Refractory: Phenobarbital, Propofol

Background: Blood alcohol level, toxicology, liver function, ECG if necessary

SAMHSA Tip 45

CAUTION WITH SEDATING MEDS

- Phenobarbital: monitor for oversedation and respiratory depression, particularly with benzodiazepines.

- Propofol: high risk of cardio/respiratory depression, typically requires ICU level of care.

BENZODIAZEPINES FOR ALCOHOL WITHDRAWAL

- Know patient's withdrawal hx
- Generally: Benzodiazepine Q1-2 hours until CIWA-Ar <10
- Severe withdrawal (loading):

Diazepam 20mg PO or Chlordiazepoxide 100mg PO every 2-3 hours till improvement or sedation.

Caution for oversedation, cardiac/resp monitoring

- Seizure hx: Taper longer-acting (Diazepam, Chlordiazepoxide) + symptom-triggered
- Generally taper over 5 days.
- Caution in elderly, medically ill, disinhibition.

SAMHSA Tip 45

DELIRIUM TREMENS AND SEIZURES

Prevention, prevention, prevention

Delirium tremens:

- IV lorazepam or diazepam, IV thiamine before IV glucose, multivitamin
- For agitation: IM or IV haloperidol
- Corrections of fluids/electrolytes, hyperthermia, hypertension
- Nursing with frequent patient orientation, comfort measures, soft restraints if needed
- May require ICU level of care

Seizures:

- Peak at 24 hours, most within 48hours
- IV lorazepam or IV diazepam + ACLS
- Increased progression to DTs

SAMHSA Tip 45

WHAT IMPACT CAN WE HAVE ON LONG-TERM COURSE?

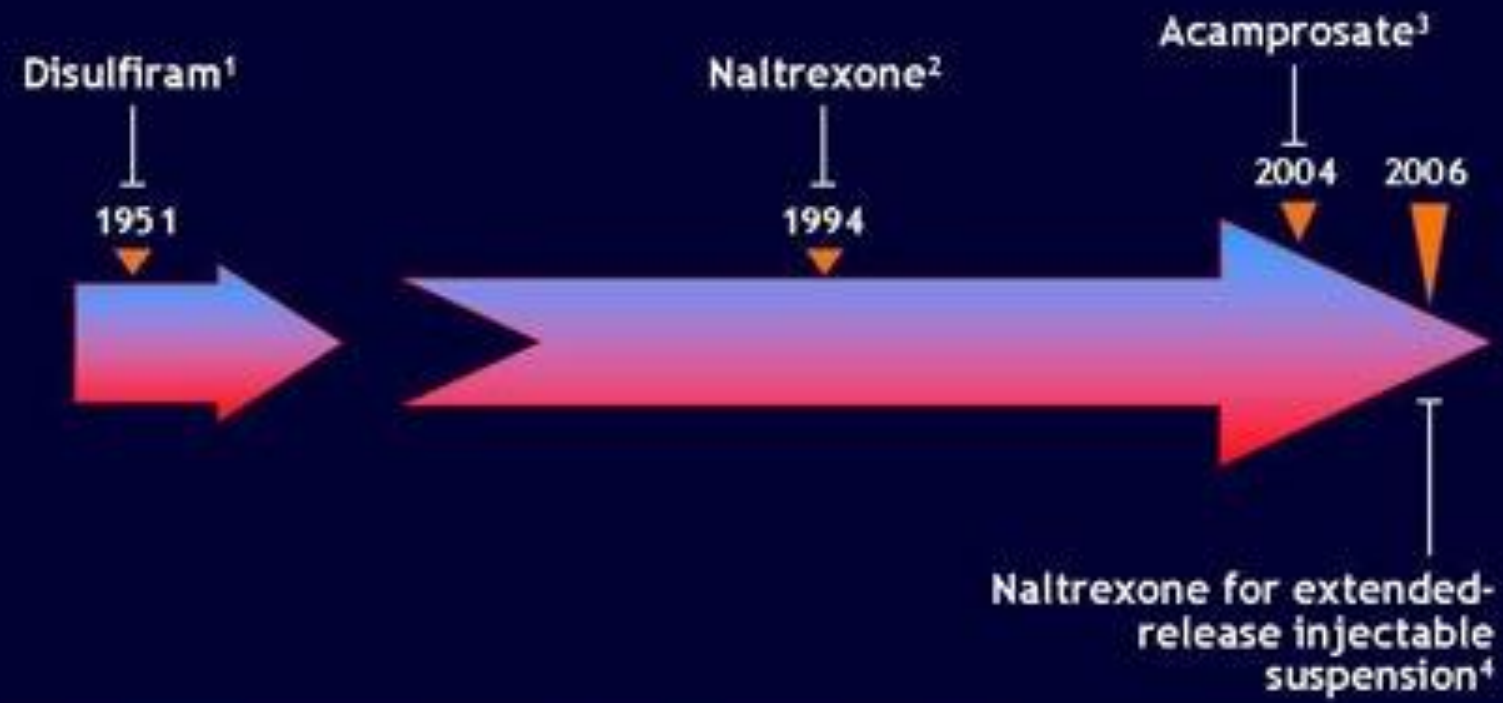
Answers:

Education/motivational interviewing

Substance use disorder (SUD) referrals

Alcohol pharmacotherapy

FDA-approved Pharmacological Treatments for Alcohol Dependence



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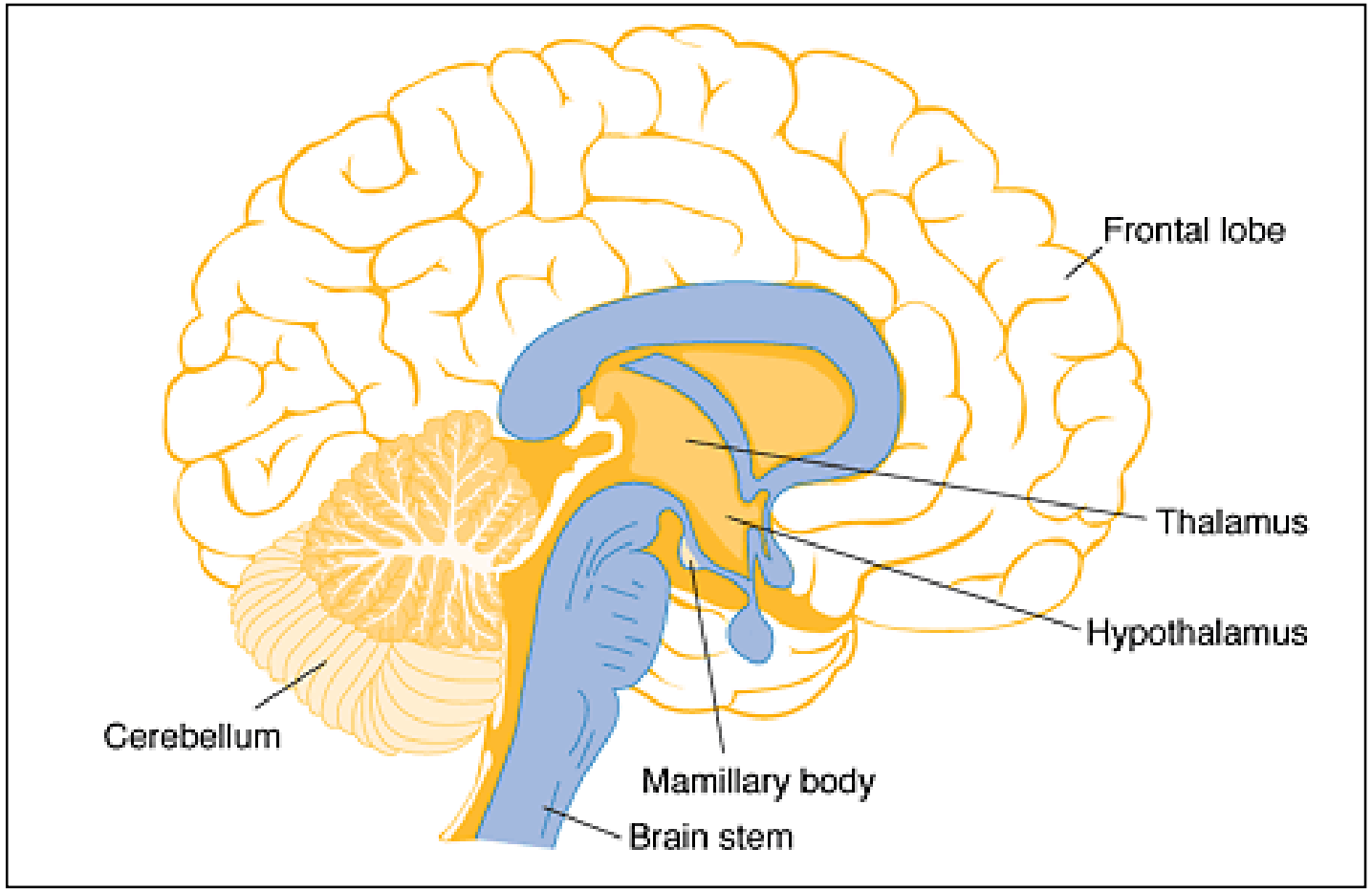
- Disulfiram
  - Acetaldehyde → reaction
  - 250-500mg PO daily
  - Can't drink while on med
  - Monitor LFTs
- Naltrexone
  - Blocks mu-opioid receptors
  - 50mg PO daily/380mg IM monthly
  - Monitor LFTs, can't take opioids
- Acamprosate
  - Modulates glutamatergic hyperactivity
  - 666mg PO TID
  - GI, fatigue

- **Gabapentin**
  - 600mg PO TID for equivalent
  - Antiseizure, anxiolytic, analgesic properties
- **Topiramate**
  - Slow titration to 300mg PO daily, divided doses
  - Caution re: RF, renal stones, narrow-angle glaucoma
  - Cog issues, mood, parasthesias, taste changes
- **Baclofen**
  - 10-20mg PO TID
  - Fatigue, sedation, dizziness, GI upset

NOT FDA APPROVED FOR AUD

Consider specialist consultation for Topiramate, Baclofen

WERNICKE-KORSAKOFF SYNDROME



NIH

WERNICKE-KORSAKOFF SYNDROME

Wernicke's encephalopathy is a degenerative brain disorder caused by the lack of thiamine (vitamin B1). Symptoms include:

- Mental confusion
- Vision problems
- Coma, hypothermia
- Low blood pressure
- Lack of muscle coordination (ataxia)

Korsakoff syndrome is a memory disorder that results from vitamin B1 deficiency and is associated with alcoholism. Symptoms include:

- Amnesia
- Tremor
- Coma
- Disorientation
- Vision problems

NIH


NARCANIA VS DEATH
THE HEROINE WHO FIGHTS HEROIN OVERDOSES (AND OTHER OPIATE ODS. LIKE FROM PILLS)
DEATH APPROACHES HIS NEXT VICTIM, LIL' SALLY SLAMSALOT WHO IS OVERDOSING ON OPIATES (HEROIN + PILLS)...
BUT WAIT! BEFORE DEATH CAN TAKE SALLY AWAY NARCANIA COMES TO SAVE THE DAY WITH HER AMAZING OPIATE BLOCKING POWERS!
POW
NARCAN!
YES THIS IS A REAL THING! NARCAN OR NALOXONE IS AN OPIATE BLOCKING DRUG THAT REVIVES PEOPLE WHO ARE EXPERIENCING AN OPIATE-RELATED OVERDOSE.
NARCANIA GIVES SALLY NARCAN, BRINGING HER BACK TO LIFE! HOORAY!
OH SHIT! I'M STILL DEAD!
THANKS NARCANIA! I DON'T KNOW IF THERE'S ANYTHING WORTH LIVING FOR, BUT AT LEAST NOW I'LL GET THE CHANCE TO FIND OUT!
FIND OUT HOW YOU CAN BE A REAL LIFE SUPERHERO...
CONTACT THE DOPE PROJECT
1-(510)444-6969
www.harmreduction.org
DRUG OVERDOSE PREVENTION & EDUCATION

OPIOIDS

HISTORY OF USE, SYMPTOMS AND BEHAVIOR

If co-morbid opioid use:

1. Type, amount, frequency, route of use
2. Withdrawal symptom history, treatment history
3. If IDU, infectious disease ROS, skin exam
4. If risky behavior, safety issues, STI testing
5. Concurrent substances and med issues

OPIOID WITHDRAWAL

Symptoms	Signs
Nausea	Restlessness
Abdominal cramps/pain	Yawning
Hot and cold flushes	Perspiration
Diffuse bone, joint, muscle pain	Rhinorrhea
Insomnia	Dilated pupils
Intense cravings	Piloerection
	Muscle twitch/ restlessness
	Vomiting
	Diarrhea

SAMHSA Tip 45

Clinical Opiate Withdrawal Scale (COWS)

Flow-sheet for measuring symptoms over a period of time during buprenorphine induction.

For each item, write in the number that best describes the patient's signs or symptom. Rate on just the apparent relationship to opiate withdrawal. For example, if heart rate is increased because the patient was jogging just prior to assessment, the increase pulse rate would not add to the score.

Patient's Name:_____ Date: _____

Buprenorphine induction:

Enter scores at time zero, 30min after first dose, 2 h after first dose, etc.

Times: _____ _____ _____ _____

Resting Pulse Rate: (record beats per minute) *Measured after patient is sitting or lying for one minute* 0 pulse rate 80 or below 1 pulse rate 81-100 2 pulse rate 101-120 4 pulse rate greater than 120				
Sweating: *over past ½ hour not accounted for by room temperature or patient activity.* 0 no report of chills or flushing 1 subjective report of chills or flushing 2 flushed or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face				
Restlessness *Observation during assessment* 0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/arms 5 Unable to sit still for more than a few seconds				
Pupil size 0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible				
Bone or Joint aches *If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored* 0 not present 1 mild diffuse discomfort 2 patient reports severe diffuse aching of joints/ muscles 4 patient is rubbing joints or muscles and is unable to sit still because of discomfort				
Runny nose or tearing *Not accounted for by cold symptoms or allergies* 0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks				

SCORE AND SEVERITY:

5-12 = MILD

13-24 = MODERATE

25-36 = MOD SEVERE

>36 = SEVERE

SAMHSA Tip 45

SUPPORTIVE WITHDRAWAL MANAGEMENT

Symptoms	Management
Sweats/palpitations	Clonidine 0.1-0.2mg PO Q6hrs PRN (hold for BP<90/60)
Anxiety, dysphoria, lacrimation, rhinorrhea	Hydroxyzine 25-50mg PO Q8hrs PRN
Diarrhea	Loperamide 4mg POx1, then 2mg PRN (max 16mg/day)
Muscle aches	Menthol/m-salicyclate cream QID PRN
Muscle spasms	Methocarbamol 1000mg PO Q6hrs PRN
Nausea/vomiting	Ondansetron 4-8mg PO Q6hrs PRN
Pain	Acetaminophen 650mg PO TID PRN
Sleep disturbance	Trazodone 50mg PO QHS PRN

VA Opioid and Benzodiazepine Taper Guide, 2015; SAHMSA Tip 45

OPTIONS FOR MEDICATION-ASSISTED TREATMENT(MAT)?

Answers:

Buprenorphine

Methadone

Naltrexone IM


P143
NO METHADONE
IN DOWNTOWN MONUMENT
SHARE & SIGN OUR PETITION!
WWW.IPETITIONS.COM/PETITION/NO-METHADONE-IN-OUR-

MEDICATION ASSISTED TREATMENT

Methadone	Buprenorphine	IM Naltrexone (Vivitrol)

MEDICATION ASSISTED TREATMENT

Methadone	Buprenorphine	IM Naltrexone (Vivitrol)
Full mu-r agonist	Partial mu-r agonist; Kappa-r antagonist	Mu-r antagonist

MEDICATION ASSISTED TREATMENT

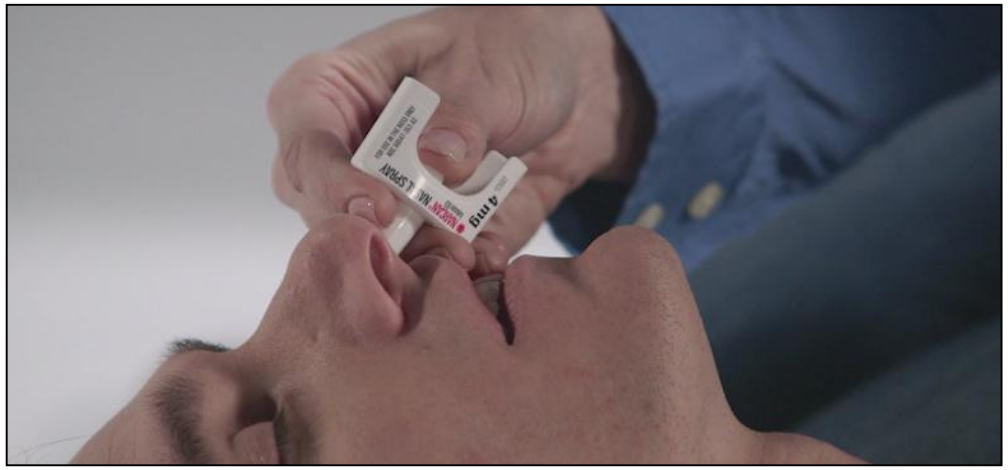
Methadone	Buprenorphine	IM Naltrexone (Vivitrol)
Full mu-r agonist	Partial mu-r agonist; Kappa-r antagonist	Mu-r antagonist
Overdose, QTc	Overdose, w/d, blockade	HTox, w/d, blockade

MEDICATION ASSISTED TREATMENT

Methadone	Buprenorphine	IM Naltrexone (Vivitrol)
Full mu-r agonist	Partial mu-r agonist; Kappa-r antagonist	Mu-r antagonist
Overdose, QTc	Overdose, w/d, blockade	HTox, w/d, blockade
Methadone Clinic	Office-based	Office-based

TRANSDERMAL TO SUBLINGUAL BUPRENORPHINE

NALOXONE (NARCAN)



TIPS ON CHRONIC PAIN PATIENTS

- Caution around sedation, resp depression with w/d meds
- Opioid+benzo can greatly increase overdose risk
- Know what pain is being treated. CDC 2016 recs not using opioids for chronic pain
- SUD history, overuse, early refills, multiple prescribers/ER
- Check PDMP
- Use lowest effective opioid doses/frequencies
- At discharge, prescribe:

1. Taper with PCP follow up
2. Short script with PCP follow up
3. Naloxone, with teaching

OTHER SUBSTANCES OF CONCERN

- Benzodiazepines
  - Carisoprodol
    - Stimulants
      - Cannabis

BENZODIAZEPINE WITHDRAWAL

- Similar to alcohol in many respects
- Gradual taper of existing benzo may be appropriate
- Long, slower is safer
- Start alternative/supportive medications
- Refer for mental health (MH) care

- WHO recommends:

-Conversion to Diazepam (up to 40mg/day)

-Stabilize for 4-7 days

-Low dose vs high dose taper schedule

WHO 2009

WHO RECS: LOW DOSE TAPER

Patients using less than 40mg/day diazepam equivalent				
	Time of dose			Total daily dose
	08:00	12:00	20:00	
Starting dose	5mg	5mg	5mg	15mg
1st reduction	5mg	2.5mg	5mg	12.5mg
2nd reduction	5mg	-	5mg	10mg
3rd reduction	2.5mg	-	5mg	7.5mg
4th reduction	-	-	5mg	5mg
5th reduction	-	-	2.5mg	2.5mg

WHO RECS: HIGH DOSE TAPER

Patients using more than 50mg/day diazepam equivalent					
	Time of dose				Total daily dose
	08:00	12:00	17:00	21:00	
Starting dose	10mg	10mg	10mg	10mg	40mg
1st reduction	10mg	5 mg	5mg	10mg	30mg
2nd reduction	5mg	-	5mg	10mg	20mg
3rd reduction	-	-	-	10mg	10mg
4th reduction	-	-	-	5mg	5mg

- Carisoprodol

→Meprobamate (GABA-ergic)

-Treat like benzo or alcohol withdrawal.

- Stimulants

Intoxication:

-PRN benzodiazepines, antipsychotics, supportive care

-Worry about vasoconstriction (ECG)

Withdrawal:

-“Crash”- watch for dysphoria/depression, supportive care

- Cannabis

Intoxication: supportive, PRN benzo/antipsychotic

Withdrawal: Gabapentin, NAC may help

GENERAL RISK STRATIFICATION

Highest risk:

History of seizures, delirium, medical complications

Higher risk:

1. Alcohol, benzodiazepine, barbiturate withdrawal.
2. Carisoprodol, Z-drug withdrawal.

Lower risk:

1. Opioid/opiate withdrawal
2. Stimulant withdrawal
3. Cannabis withdrawal

REFERENCES

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Thank you!

tauheed.zaman@ucsf.edu