Ambulatory Alcohol Withdrawal Management

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ASAM Virtual 2021
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The ASAM
CLINICAL PRACTICE GUIDELINE ON
Alcohol Withdrawal Management

ASAM American Society of Addiction Medicine

Disclosures

- Anika Alvanzo, MD, MD, DFASAM, FACP
  - No Disclosures

Learning Objectives

- Describe assessment and risk stratification of patients with alcohol withdrawal syndrome (AWS)
- Discuss pharmacotherapy for alcohol withdrawal in the ambulatory setting

AWS Epidemiology

- 29% lifetime alcohol use disorder (AUD)
  - 14% past year AUD
- Up to 50% of AUD patients experience clinically significant withdrawal symptoms
- For up to 90% of patients, AWS is mild or moderate
- Hallucinosis in 8% of AWS patients (Wartenberg 2014)
- Seizures in 11% of *placebo-treated* patients enrolled in studies of BZD effectiveness
- Alcohol Withdrawal Delirium (AWD) in 5% of AWS patients
  - AWD fatal in 5-20% of *untreated* patients, most due to arrhythmias or MI
  - AWD mortality reduced to less than 1% if *treated*

Grant, et. al., 2015; Mirijello 2015 Drugs; Wartenberg 2014 ASAM Principles
Driessen 2005 Alcohol & Alcoholism;

Impact of Covid on Drinking and AWS

JAMA Network | Open

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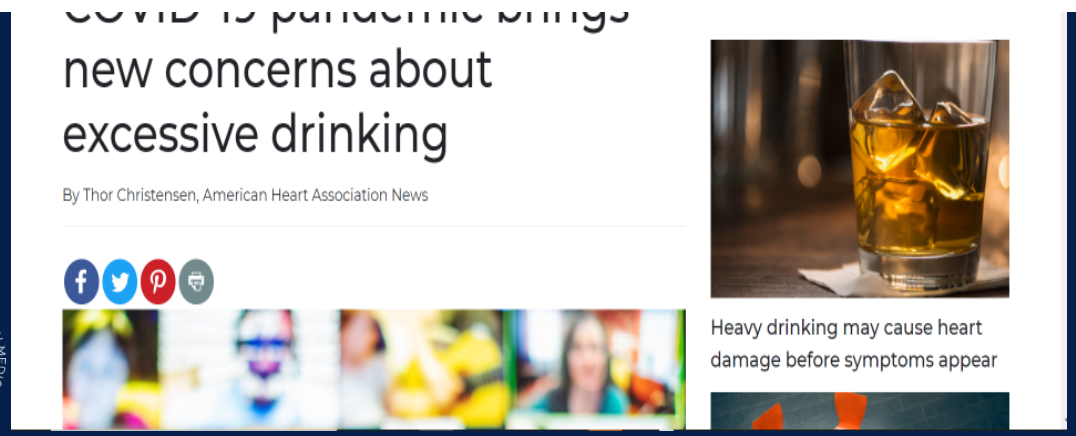
Research Letter | Substance Use and Addiction

Alcohol Withdrawal Rates in Hospitalized Patients During the COVID-19 Pandemic

Ram A. Sharma, MD; Keshab Subedi, MS, MSc; Bayo M. Gbadebo, MBA; Beverly Wilson, MS; Claudine Jurkovitz, MD, MPH; Terry Horton, MD



COVID-19 pandemic brings new concerns about excessive drinking

By Thor Christensen, American Heart Association News

Heavy drinking may cause heart damage before symptoms appear

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Hangover From Alcohol Boom Could Last Long After Pandemic Ends

By EDITOR • SEP 11, 2020

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AWS Identification and Diagnosis

At-risk Drinking

- Binge drinking ("too much too fast")
  - Men: > 4 drinks/occasion (2-hour period)
  - Women: >3 drinks/occasion in a (2-hour period)
  - Pattern thought to result in BAC ≥ 0.08%
- Heavy drinking ("too much too often")
  - ♂ < 65: > 4 drinks/day or >14 drinks/week
  - ♀ and ♂ ≥ 65 : >3 drinks/day or >7 drinks/week
- Any drinking by those age < 21yo and pregnant women

Identification (I.1 – 1.4)

- General Medical Population
  - Universal screening using validated screening tool
- For patients with known at-risk alcohol use
  - Assess for risk of alcohol withdrawal
    - AUDIT-PC
- For patients with signs/symptoms suggestive of alcohol withdrawal syndrome
  - Assess quantity, frequency, time of last alcohol use
- Biological test for recent alcohol use may be helpful in certain patients
  - Inability to communicate (e.g. incapacitated, intubated, etc.)
  - Do not rule out AWS based on a positive or negative test

Diagnosis (I.5 – I.11)

- Use diagnostic criteria (e.g. DSM-5) for diagnosis of AUD and AWS
- Do **not** use alcohol withdrawal severity scales for diagnosis
- Do **not** use blood alcohol level (BAL) as inclusion or exclusion criteria for AWS
- Differential diagnosis
  - Comprehensive assessment, including ruling out other illnesses that may mimic alcohol withdrawal
    - Be mindful of medications that may mask signs/symptoms of AWS (e.g. beta blockers, α2 agonists)
  - Consider co-occurring medical, mental health and substance use disorders
  - Appropriate neurological examination and assessment in patients presenting with seizure or delirium

DSM 5 Diagnosis of Alcohol Withdrawal

- Stop or reduce alcohol that has been heavy or prolonged
- ≥ 2 of the following
  - Autonomic hyperactivity
  - Agitation
  - Anxiety
  - Tremor
  - Insomnia
  - Nausea/vomiting
  - Transient hallucinations (tactile, auditory, visual) or illusions
  - Generalized tonic-clonic seizure
- Signs/symptoms cause clinically significant functional decline
- Signs/symptoms are not due to another medical condition

AWS Assessment

Signs and Symptoms of AWS

Signs and Symptoms	Typical Onset	Other
Mild Withdrawal • Mild anxiety, tremor, insomnia, headache, gastrointestinal upset, palpitations; still coherent.	6 – 24 hours	Symptoms generally resolve in 24–48 hours if no progression
Alcoholic Hallucinosis • Hallucinations (predominately tactile, can be visual or auditory), sensorium otherwise maintained.	12 – 24 hours	Symptoms generally resolve in 24–48 hours if delirium does not emerge
Moderate & Severe Withdrawal • Increased severity signs and symptoms; marked agitation and diaphoresis; increased systolic blood pressure, tachypnea, tachycardia, mild hyperthermia; confusion may be present.	24 – 72 hours	Duration usually 5–7 days
Withdrawal Seizures • Generalized tonic-clonic seizures	8 – 48 hours	Peak occurrence at 24 hours
Alcohol Withdrawal Delirium • Hallucinations (predominately visual) and disorientation; autonomic instability: severe tachycardia, hypertension, agitation, diaphoresis, low-grade fever.	72 – 96 hours	Symptoms can last for a few hours, but usually last 2–3 days

Initial Assessment Goals

- Orient initial assessment towards **evaluating risk of**:
  - **Severe** AWS
  - **Complicated** AWS: Seizure/AWD
  - Complications of AWS: Potentially life-threatening exacerbation of existing condition
- Also assess severity of presenting signs and symptoms.

Rationale

- Signs and symptoms can escalate quickly.
- The trajectory of AWS can vary considerably among patients who are:
  - older.
  - using sedative hypnotics.
- Seizure and hallucinosis may occur in the absence of other clinically prominent signs or symptoms.

Initial Assessment Approach (II.1 – II.4)

- Comprehensive history and physical
  - May need to use collaterals for history (e.g. family, friends, EHR, etc.) and/or biological testing if patient is unable to provide history
- Use validated tool to assess for risk
- Use validated tool to assess for severity of symptoms
- Establish the timeline since last alcohol consumption

AWS Risk Assessment Tools

- Helpful in predicting risk for developing severe AWS
  - Prediction of Alcohol Withdrawal Assessment Scale (PAWSS)
  - Luebeck Alcohol Withdrawal Risk Scale (LARS)

AWS Severity Assessment Tools

- Clinical Institute Withdrawal Assessment for Alcohol, Revised (CIWA-Ar)
- Brief Alcohol Withdrawal Scale (BAWS)
- Short Alcohol Withdrawal Scale (SAWS)
- Richmond Agitation-Sedation Scale (RASS)

Categorizing Signs and Symptoms of AWS

Source: The ASAM Clinical Practice Guideline on Alcohol Withdrawal Management Pocket Guide

Table 1. Alcohol Withdrawal Severity

Severity Category	Associated CIWA-Ar Range[a]	Clinical Findings
Mild	CIWA-Ar <10	Mild or moderate anxiety, sweating and insomnia, but no tremor
Moderate	CIWA-Ar 10–18	Moderate anxiety, sweating, insomnia, and mild tremor
Severe	CIWA-Ar ≥19	Severe anxiety and moderate to severe tremor, but not confusion, hallucinations, or seizure
Complicated	CIWA-Ar ≥19	Seizure or signs and symptoms indicative of delirium – such as an inability to fully comprehend instructions, clouding of the sensorium or confusion – or new onset of hallucinations

[a] Throughout this document, we provide examples for withdrawal severity using the CIWA-Ar, although other scales can be used. Regardless of the instrument used, there is a wide variety in the literature and in practice as to which scores best delineate mild, moderate and severe withdrawal. Classification of withdrawal severity is ultimately up to the judgment of clinicians and the choice of reference range may be based on their particular patient population or capabilities.

Primary Level of Care Considerations

Level of Care (LOC) is determined by:

- Current signs and symptoms
- Level of risk for severe, complicated AWS
- Other dimensions such as recovery capital and environment

Rationale

- In accordance with *The ASAM Criteria,* patients should be treated in the least restrictive setting that is safe.
- The greater the risk, the greater the need for intensive monitoring.
- Risk can be mitigated with medication and monitoring.

Ambulatory Withdrawal Management: LOC

Level 1-WM: Ambulatory withdrawal management without extended on-site monitoring

- **Primary care office**
- Least disruptive to patient life
- May help patients avoid stigma

Level 2-WM: Ambulatory withdrawal management with extended on-site monitoring

- **Intensive outpatient, day hospital setting**
- Daily clinic contact
- Often co-located with outpatient AUD treatment
- Access to other support services

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Pharmacotherapy

Management Goals

Treatment Goal	Treatment Plan
Ameliorate signs and symptoms of withdrawal	Reassurance Calm environment Medication
Prevent severe and complicated withdrawal	Monitor frequently Prophylactic medication
Ensure patient safety	Safety protocols Patient education
(Arrange to) Address other patient health problems	Nutritional deficiencies Hydration Consult/Refer to other health care providers as needed
Support successful AUD treatment	(Arrange to) Initiate AUD treatment Patient education

Medications for AWS Monotherapy

- Target the GABA and/or glutamate system
  - Benzodiazepines (BZDs)
    - Medication of choice for most forms of AWS.
    - Appropriate for most patients in all settings.
    - Have the **most** empirical evidence of efficacy and safety in reducing AWS signs and symptoms
  - Phenobarbital
    - Indications:
      - Prophylaxis
      - Severe or complicated AWS
      - Benzodiazepines contraindicated
      - Not responding to benzodiazepines
    - Cautions:
      - Clinicians have training and experience using it for AWS
      - Patients are observed (Not Level 1-WM)

Medications for AWS Monotherapy

- Target the GABA and/or glutamate system
  - GABA sensitive anticonvulsants (primarily carbamazepine & gabapentin)
    - Appropriate for **mild to moderate** withdrawal
    - Particularly if:
      - Benzodiazepines are contraindicated
      - Plan to use Gabapentin for ongoing alcohol pharmacotherapy
    - Compared to benzodiazepines and phenobarbital:
      - Better safety profile
      - Less sedating
      - Fewer drug-drug interactions

Other Medications for AWS

- Valproic acid
  - Not appropriate for monotherapy but can be used as an adjunct to BZDs
  - Not appropriate for women of childbearing potential or those with liver disease
- Alpha-2 adrenergic agonists
  - Only appropriate as adjuvants to benzodiazepines
  - Consider use for autonomic hyperactivity and insomnia
- Beta blockers
  - Only appropriate as adjuvants to benzodiazepines
  - Consider use for persistent tachycardia and/or hypertension

Monitoring

Monitoring Goals

- Signs and symptoms are responding as expected
- Other conditions are not worsening
- Potential over-sedation from withdrawal medication
- Patients are following instructions while away from AWM setting
- Other indications for the need to reassess a patient's treatment plan and/or level of care

Ambulatory: Monitoring Frequency

- Check in with a qualified health provider **daily** for **up to five days** following cessation of (or reduction in) alcohol use.
- If they cannot attend clinic daily, **some** patients can alternate in-person visits with remote check-ins via phone/internet.

Rationale

While daily monitoring is desirable, occasional telehealth check ins might be sufficient, especially for patients in mild withdrawal or who are nearing completion of withdrawal.

Monitor General Health

- Focus on patients' health since the last check-in
- Assess:
  - General physical condition
  - Vital signs
  - Hydration
  - Orientation
  - Sleep
  - Emotional status including suicidal thoughts

Rationale:

- It is important to ensure the patient is following instructions regarding hydration and nutrition and that their physical health and mental health is not deteriorating

Monitor Alcohol & Substance Use

- Assess alcohol (with a breathalyzer if available) and other substance use

Rationale:

- Especially if patient is using BZDs or PHB to treat AWS, it is important to know if patient is also consuming alcohol or other drugs that have dangerous interactions
- Alcohol use may indicate that the patient is not receiving an adequate dose of medication or their environment is not sufficiently stable for their current LOC

Monitor AWS Severity

- Monitor AWS severity with a validated instrument
- If a patient can monitor their signs and symptoms while away from the clinic, use an instrument designed for self-administration such as the Short Alcohol Withdrawal Scale (SAWS)

Rationale:

- It is important to know if withdrawal signs and symptoms are worsening or responding as expected
- Using a validated scale ensures measurement consistency over time

Monitor Response To Treatment

Transfer to a more intensive LOC if:

- Agitation or severe tremor has not resolved by the time the treatment center closes despite multiple doses of medication
- More severe signs or symptoms develop
- Existing medical or psychiatric conditions worsen despite control of AWS signs and symptoms
- Patient appears over-sedated
- Patient returns to alcohol use
- Syncope, unstable vital signs that cannot be attributed to and controlled for by the treatment regimen

Rationale:

- It is important to recognize the need for transfer to a more intense LOC for patient safety
- In general, these indicators suggest
  - A patients requires continued supervision
  - The syndrome is of higher severity than expected
  - An underlying condition is of higher severity than expected
  - A patient's environment is not sufficiently stable for their current LOC

Recommendation IV.5

Alcohol Use Disorder Treatment Initiation

- When feasible, initiate AUD treatment concurrently with AWM as cognitive status permits
- If appropriate, offer to initiate pharmacotherapy for AUD
- If not feasible, explain the range of evidence-based treatment services available, and engage with options
- Offer information about local recovery support groups

Rationale:

- Presence of AWS almost universally signifies the presence of an AUD and need for treatment
- AWM should be used to engage patients with an AUD with comprehensive treatment

Recommendation IV.12:

Summary

Key Takeaways

- Initial assessment and determination of level of care should focus on current signs and symptoms and risk(s) for progression
  - Use of a standardized assessment tool is recommended, with selection of tool based upon your practice setting
- BZDs remain the medication of choice for most forms, but the GABA-sensitive anticonvulsants are viable options for mild to moderate of AWS
- Proper monitoring is essential
- Initiate AUD treatment as early as possible, can be concurrent with AWS management.

Acknowledgements

- ASAM Staff for most of the slide content.

References

1. The American Society of Addiction Medicine (ASAM) Guideline on Alcohol Withdrawal Management

All of the following assessment tools can be used to assess the severity of alcohol withdrawal syndrome, except:

1. Brief Alcohol Withdrawal Scale (BAWS);
2. Clinical Institute Withdrawal Assessment for Alcohol, Revised (CIWA-Ar);
3. Prediction of Alcohol Withdrawal Assessment Scale (PAWSS);
4. Short Alcohol Withdrawal Scale (SAWS)

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4. Short Alcohol Withdrawal Scale (SAWS)

All of the following medications can be used as monotherapy for treatment of mild to moderate alcohol withdrawal syndrome, except?:

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2. Phenobarbital;
3. Carbamazepine;
4. Valproic acid

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2. Phenobarbital;
3. Carbamazepine;
4. **Valproic acid**

Applying the ASAM NPG: Ambulatory Withdrawal Management for People Experiencing Homelessness During COVID-19

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No disclosures

Addiction During COVID-19

COVID-19 pandemic increases need for addiction treatment:

COVID-19

- Stress, anxiety and isolation
- “Stay-at-Home” orders and border restrictions
- Unemployment, loss of economic opportunity, and poverty

Negative Outcomes

- Increase symptoms of addiction and mental illness
- Reduce drug availability
- Increase symptoms of addiction and mental illness

It is critical that patients have access to treatment during this pandemic.

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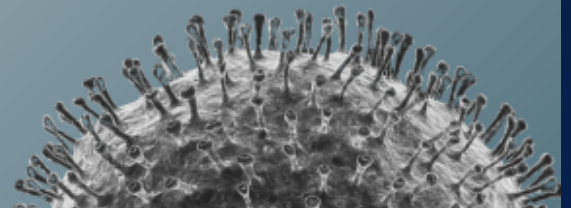
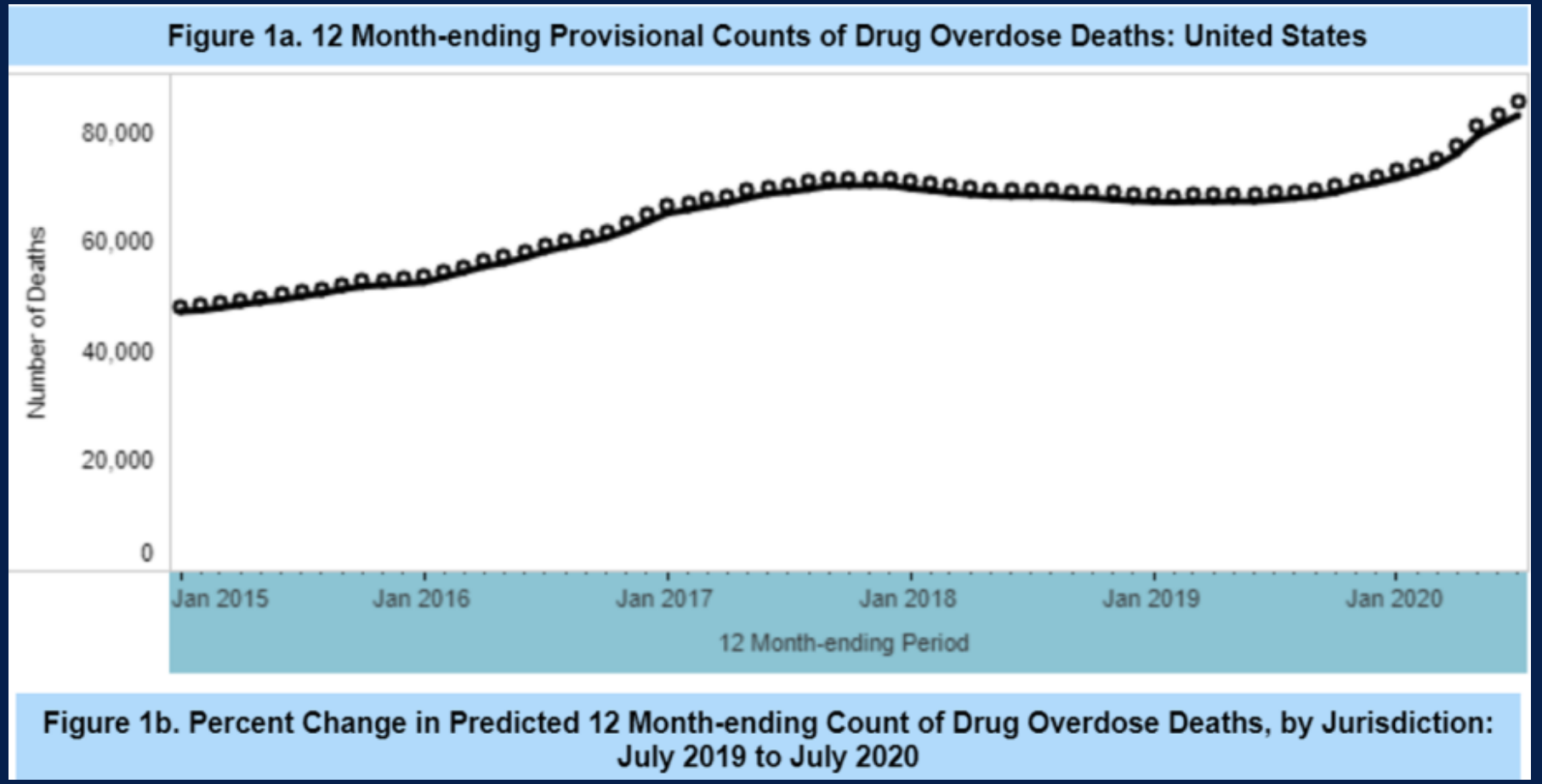


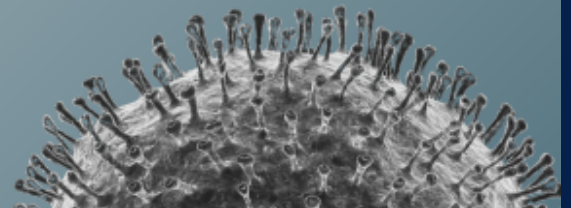
Rising Overdose Rates



https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm

COVID-19 Adaptations

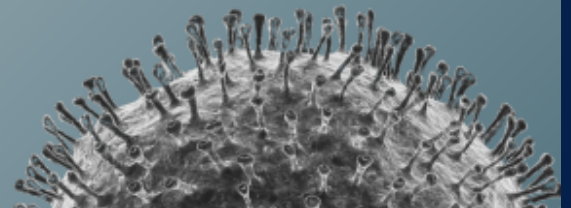
Clinicians, treatment programs, and systems of care must pivot during times of disaster from traditional 'best practices' which rely upon usual resource availability, while providing the best care possible under their circumstances for the patients in their community.



COVID-19 Adaptations

Rapid and deep federal guidance, regulatory changes, and payment changes must be implemented within state and local regulatory and payment structures.

There is an urgent/emergent need for clinicians, treatment programs, systems of care to break from silos and collaborate for new systems



Phases of the COVID-19 Pandemic

Early Phase

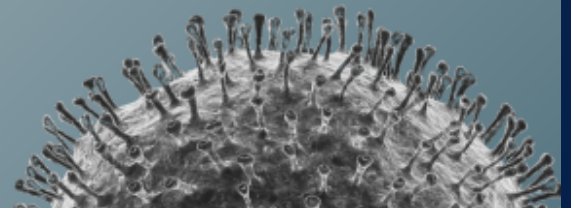
- **Low population prevalence**
- **Preventing transmission of the virus using physical distancing**
- **Develop protocols for keeping infectious patients /staff in isolation or quarantine**
- **PLAN FOR PHASE 2 !**

Middle Phase

- **Higher population prevalence makes isolating of individuals impractical**
- **Designating entire areas/systems, including community housing, as available to either infectious or non-infectious persons.**

Post-Pandemic

Updated best practices are implemented based upon lessons learned



The ASAM

CLINICAL PRACTICE GUIDELINE ON

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ASAM American Society of Addiction Medicine

https://www.asam.org/Quality-Science/quality/guideline-on-alcohol-withdrawal-management

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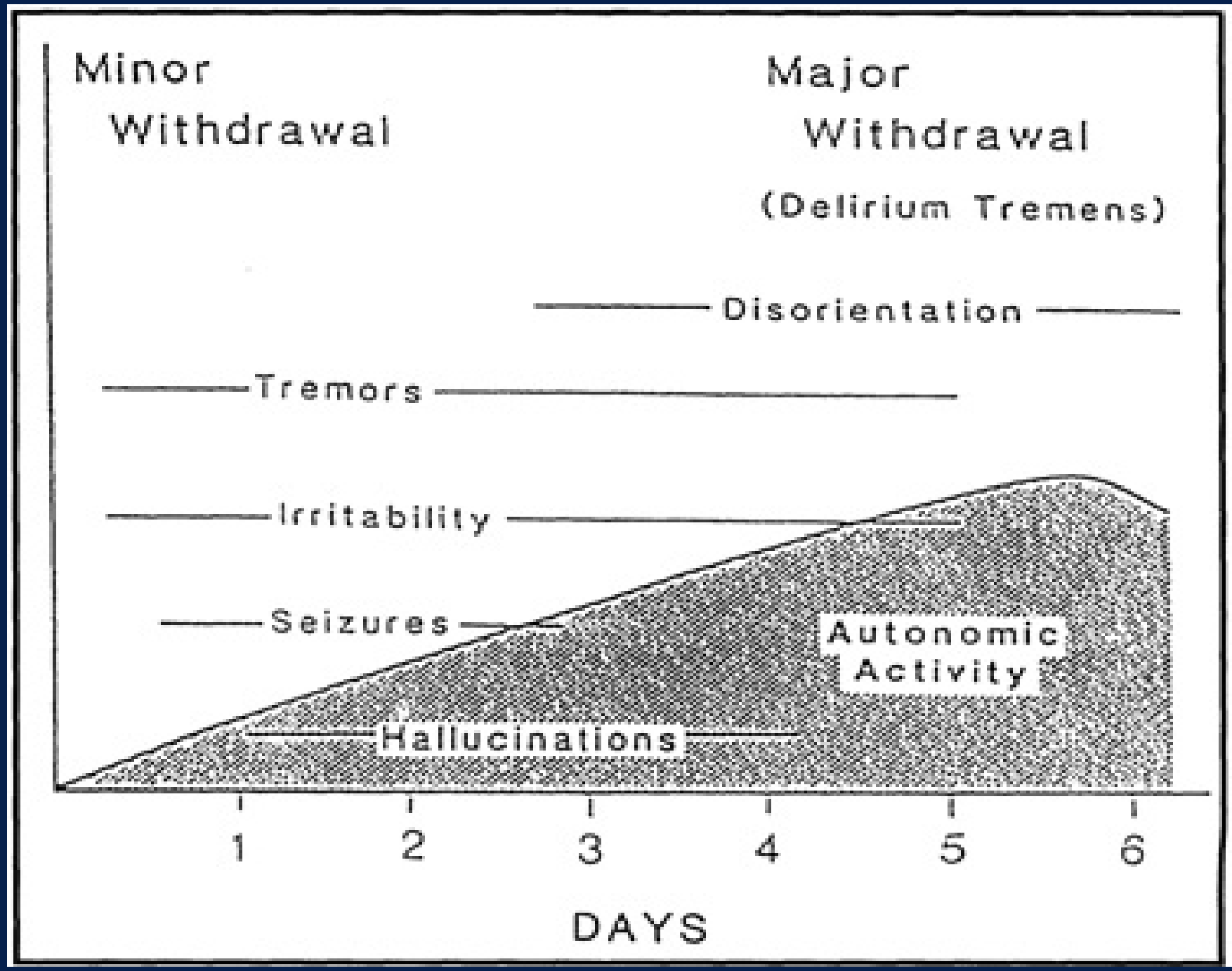
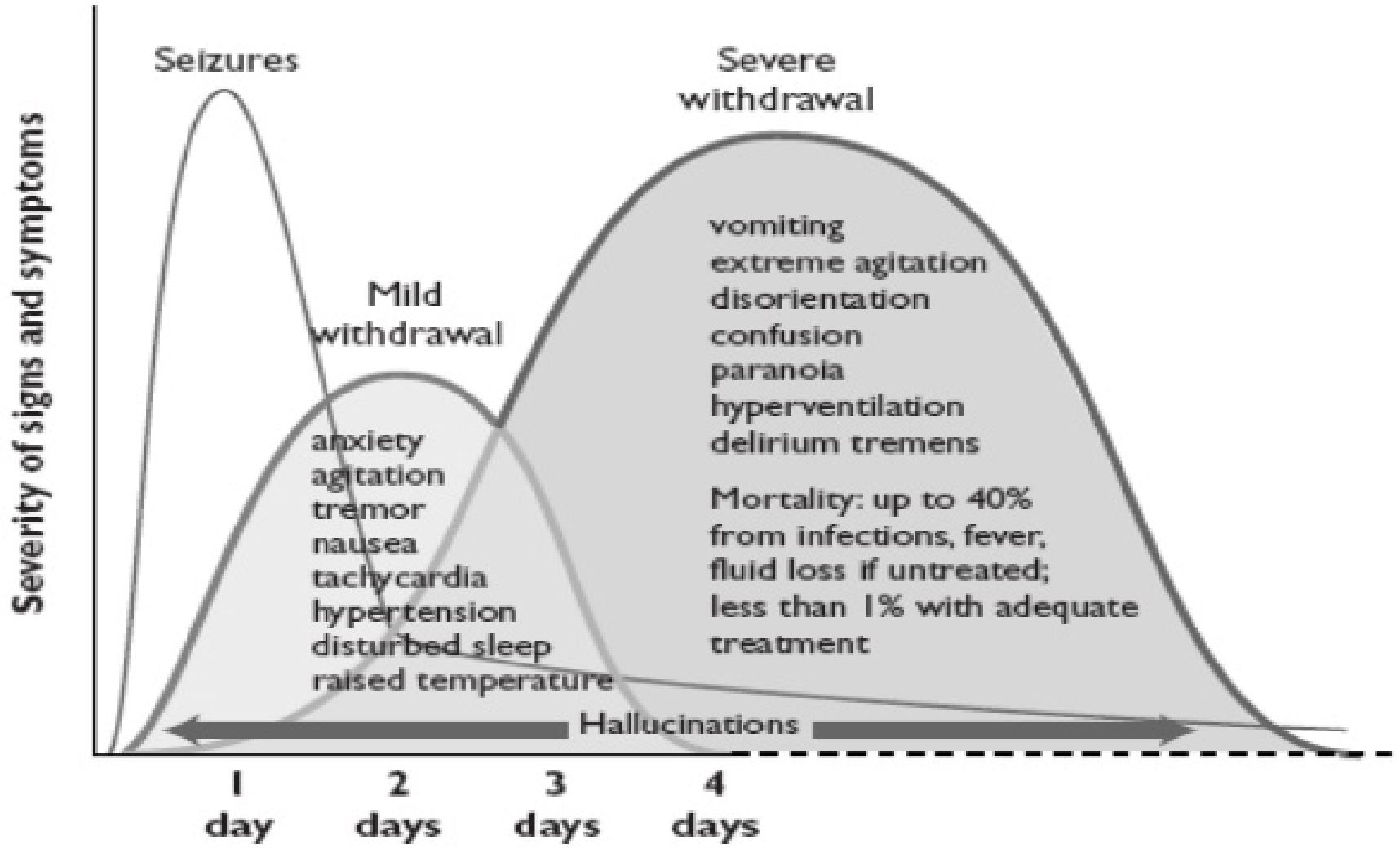
Implementing AWS Management Program

COVID-19 Adjustments in Los Angeles County Department of Health Services

- Rapid deployment of expected practice guidance
- On-Call telephone consultation
- Capacitize field and hotel quarantine / isolation sites for people experiencing homelessness
- Moving routine services to tele-visits, and installation of a telehealth platform


Minor
Withdrawal
Major
Withdrawal
(Delirium Tremens)
Disorientation
Tremors
Irritability
Seizures
Autonomic
Activity
Hallucinations
1
2
3
4
5
6
DAYS

Progress of alcohol withdrawal syndrome



Adapted from Frank L, Pead J. New concepts in drug withdrawal: a resource handbook. © 1995 State of Victoria. Reproduced with permission.

ALCOHOL WITHDRAWAL SEIZURES

- Recurrent detox and prior seizure are risk factors
- Occur 24-48 hrs after abstinence or decreased intake
- Often occur prior to autonomic hyperactivity
- Generalized, single or a few (79% <3, <3% status), over a short time (86%/1st 6 hrs)
- Fever, delirium, focal exam, head trauma, focal or multiple seizures, 1st seizure ever, or status suggest other diagnoses
- CT scanning unhelpful if clinical picture consistent

Victor & Brausch. Epilepsia 1967;8:1
Feussner et al. Ann Int Med 1981;94:519
Lechtenberg 1990

American Society of Addiction Medicine Practice Guidelines

- **Symptom-triggered** (q 1 when CIWA-Ar≥8)
  - Chlordiazepoxide 50-100 mg
  - Diazepam 10-20 mg
  - Lorazepam 2-4 mg
- **Fixed schedule** (q 6 for 4/8 doses + PRN)
  - Chlordiazepoxide 50 mg/25 mg
  - Diazepam 10 mg/5 mg
  - Lorazepam 2 mg/1 mg

Mayo-Smith and ASAM working group JAMA 1997;278:144-51
Saitz and O'Malley Med Clin N A 1997;81:881-907

Benzodiazepines reduce seizures

ANY 1/188 (0.5%)
Placebo 16/201 (8%)

RRR 93%, p<0.001

Sereny 1965, Kiam 1969, Zilm 1980, Sellers 1983, Naranjo 1983,
summarized in Mayo-Smith MF & ASAM Working Group JAMA 1997;278:144-51

Benzodiazepines reduce delirium

Chlordiazepoxide 3/172 (2%)
Placebo 11/186 (6%)

RRR 71%, p=0.04

Rosenfeld 1961, Sereny 1965, Kaim 1969, Zilm 1980,
summarized in Mayo-Smith MF & ASAM Working Group JAMA 1997;278:144-51

Phenobarbital

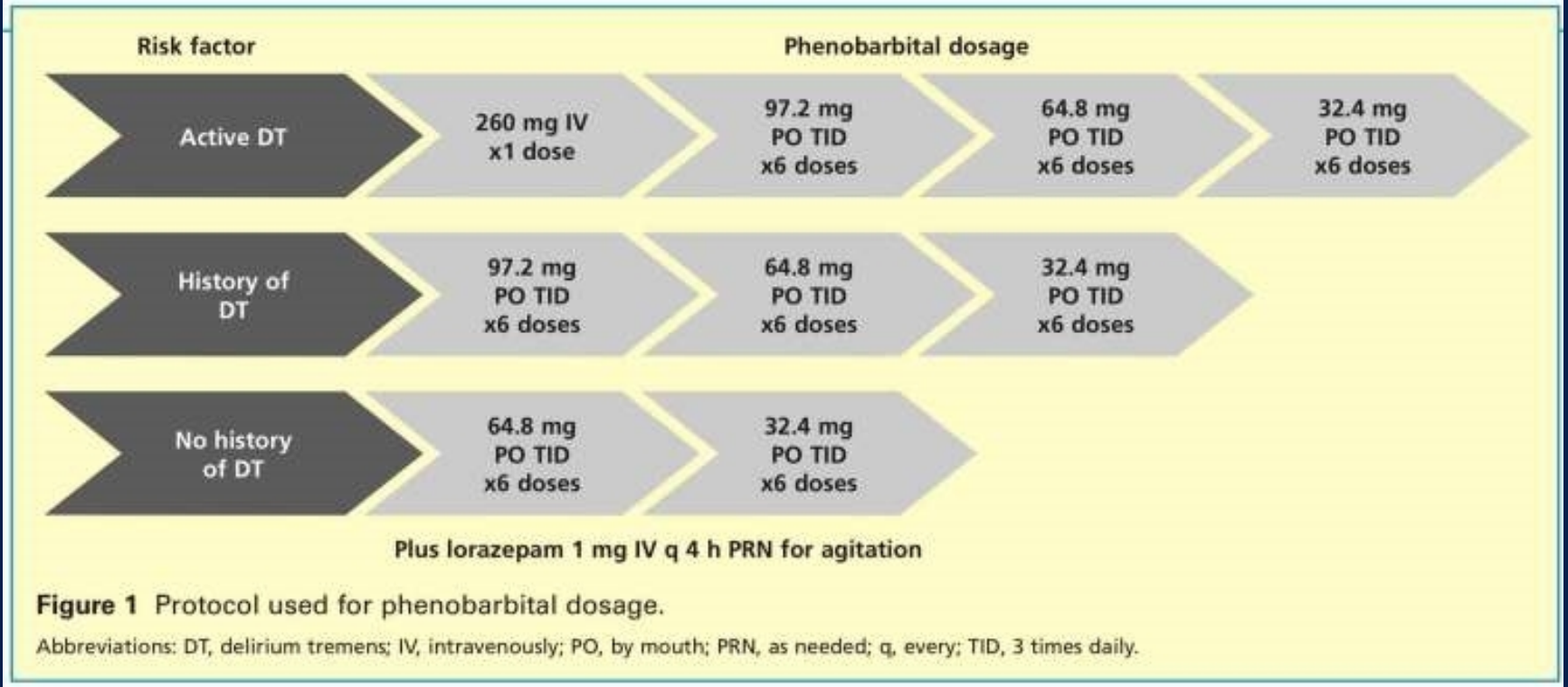


Figure 1 Protocol used for phenobarbital dosage.

Abbreviations: DT, delirium tremens; IV, intravenously; PO, by mouth; PRN, as needed; q, every; TID, 3 times daily.

Tidwell, W. P., Thomas, T. L., Pouliot, J. D., Canonico, A. E., & Webber, A. J. (2018). Treatment of alcohol withdrawal syndrome: phenobarbital vs CIWA-Ar protocol. *American Journal of Critical Care*, *27*(6), 454-460.

Non-Benzodiazepine Anticonvulsants

- Carbamazepine
  - Fixed dose, 800 mg/day tapered over 4, 7, 9, 12 days OR
  - Symptom-triggered dosing at 200mg or 400mg prn (≤1200 mg/day)
- Gabapentin
  - Fixed dose, 300-600mg QID, tapered off in 5-7 days
- Valproate
  - 500mg TID x7d
  - Not great as a monotherapy

Hammond, C. J., Niciu, M. J., Drew, S., & Arias, A. J. (2015). Anticonvulsants for the treatment of alcohol withdrawal syndrome and alcohol use disorders. *CNS drugs*, *29*(4), 293-311.

Non-Benzodiazepine Anticonvulsants

- Oxcarbazepine
  - Fixed dose, 900 mg/day, tapered over 5-6 days
- Pregabalin
  - Flexibly dose to minimize symptoms (between 200 and 450 mg/day) for 7d, followed by a 7d taper
- Levetiracetam
  - Fixed dose, 2000 mg/day, tapered over 6 days
- Topiramate
  - Fixed dose, 25 mg QID x7d
- Zonisamide
  - Flexible dosing starting at 400–600 mg/day and tapered over 21 days to 100–300 mg/day

Hammond, C. J., Niciu, M. J., Drew, S., & Arias, A. J. (2015). Anticonvulsants for the treatment of alcohol withdrawal syndrome and alcohol use disorders. *CNS drugs*, *29*(4), 293-311.

Other Options

- Baclofen
- Clonidine
- Dexmedetomidate
- Ketamine
- Sodium oxybate

Sachdeva A, Choudhary M, Chandra M. Alcohol Withdrawal Syndrome: Benzodiazepines and Beyond. J Clin Diagn Res. 2015 Sep;9(9):VE01-VE07. doi: 10.7860/JCDR/2015/13407.6538. Epub 2015 Sep 1. PMID: 26500991; PMCID: PMC4606320.
http://www.ncbi.nlm.nih.gov/pmc/articles/pmid/26500991

Benzos vs. Other Anticonvulsants

- Despite their proven usefulness in the management of alcohol withdrawal seizures and delirium tremens, the use of benzodiazepines for alcohol withdrawal in ambulatory settings is fraught with potential complications, which include high risk of the medication being diverted, high risk of benzodiazepines being taken by the patient in ways other than as prescribed, blunted cognition, respiratory and cognitive interactions with other central nervous system depressants such as alcohol, increased alcohol cravings, and psychomotor retardation including ataxia.

Sachdeva A, Choudhary M, Chandra M. Alcohol Withdrawal Syndrome: Benzodiazepines and Beyond. J Clin Diagn Res. 2015 Sep;9(9):VE01-VE07. doi: 10.7860/JCDR/2015/13407.6538. Epub 2015 Sep 1. PMID: 26500991; PMCID: PMC4606320.
http://www.ncbi.nlm.nih.gov/pmc/articles/pmid/26500991

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Example of Expected Practice

- Step 1: Diagnose and determine severity of alcohol withdrawal syndrome in patients with clinically significant alcohol consumption where the patient is currently experiencing, or likely to experience, alcohol withdrawal syndrome
  - A formal SAWS or CIWA does not need to be administered or completed prior to offering patients alcohol / sedative withdrawal management if mild to moderate withdrawal is confirmed by the clinical history.
- Indications to refer patients to a higher level of care:
  - History of delirium tremens or withdrawal seizures
  - Acute illness
  - Severe cognitive impairment (acute or chronic) that prevents ability of patient to take medications or follow instructions
  - Inability to take oral medications because of vomiting or swallowing issues
  - Serious psychiatric condition requiring a higher level of care
  - Pregnancy – unless directed by high risk obstetrics team
  - Severe alcohol withdrawal symptoms (SAWS > 16 or CIWA-Ar ≥ 20 if using scales)
- If any of the above are present, refer to a higher level of care as described in Appendix B.

Example of Expected Practice

- Step 2: Order the following labs at the same time medication (Step 3) is started:
  - Urine drug screen (Urine Drug Toxicology Screen – Expanded)
  - Complete blood count (CBC)
  - Comprehensive metabolic panel (CMP)
- Do not hold medications for the results of these tests unless there is a history of or obvious signs of renal compromise (for gabapentin) or liver compromise (for carbamazepine) where the expected findings would change management. Patients who are found to have profound derangements in laboratory studies should be considered for a higher level of medical care.
- Step 3: Initiate pharmacotherapy for alcohol withdrawal
  - Gabapentin is the first line agent; carbamazepine can be used in patients who experience gabapentin-induced sedation, dizziness, edema, or GI intolerance. Escalate to a higher level of care if the patient has worsening withdrawal symptoms despite gabapentin treatment. Gabapentin is renally cleared so avoid if CrCl is ≤ 30 mL/minute and dose adjusted if CrCl is ≤ 60 mL/min.

Example of Expected Practice

Gabapentin is dosed as 600mg PO TID plus an additional 600mg prn once daily for the first week, followed by a 300mg taper after the first week

Days	Gabapentin Monotherapy (fixed schedule dosing)
1	1,200mg BID plus 1,200mg x1 prn
2-7	600mg TID plus 600mg x1 prn
8	300mg TID
9	300mg BID
10	300mg qHS

How to write the gabapentin prescription:
Rx: Gabapentin 600mg tabs, take as directed, #30, NR
Verbalized or printed instructions for the patient:
Day 1: Take 2 tabs twice daily plus an additional 2 tabs if needed the first day
Days 2-7: Take 1 tab three times daily plus an additional 1 tabs if needed
Day 8: Take ½ tab three times daily
Day 9: Take ½ tab twice daily
Day 10: Take ½ tab once at bedtime

Example of Expected Practice

In patients who do not tolerate gabapentin:

Carbamazepine is dosed 200mg PO QID x 72° followed by a 200mg reduction q72°

Days	Carbamazepine Monotherapy (fixed schedule dosing)
1-3	200mg QID
4-6	200mg TID
7-9	200mg BID
10-11	200mg qHS

How to write the carbamazepine prescription:
Rx Carbamazepine 200mg tabs, take 1 QID x3d, then 1 TIDx3d, then 1 BID x3d, then 1 qHS x3d, #30, NR
Verbalized or printed instructions for the patient:
Days 1-3: Take 1 four times throughout the day
Days 4-6: Take 1 three times throughout the day
Days 7-9: Take 1 twice a day
Days 10-11: Take 1 at bedtime

Gabapentin 600mg tablets for alcohol / sedative withdrawal

You are being prescribed Gabapentin to help with cravings and withdrawal of alcohol use.

You will receive a supply of 30 tablets. Please notify the staff if you are having any worsening withdrawal and if the dose of medication you are receiving is not working to treat your withdrawal.

HOW to take Gabapentin:

Get emergency medical help if you have signs of an allergic reaction: hives; difficult breathing; swelling of your face, lips, tongue, or throat. Seek medical treatment if you have a serious drug reaction that can affect many parts of your body. Symptoms may include: skin rash, fever, swollen glands, flu-like symptoms, muscle aches, severe weakness, unusual bruising, or yellowing of your skin or eyes. This reaction may occur several weeks after you began using gabapentin.

Sponsored by the National Health Foundation through a Sierra Health Foundation MAT Access Points Project award and developed in partnership with Los Angeles County Department of Health Services, CA Bridge, and the Center for Care Innovation's Addiction Treatment Starts Here program.

Health Services
LOS ANGELES COUNTY

Tegretol 200 mg tablets for alcohol / sedative withdrawal

You are being prescribed Tegretol to help with cravings and withdrawal of alcohol use.

You will receive a supply of 30 tablets. Please notify the staff if you are having any worsening withdrawal and if the dose of medication you are receiving is not working to treat your withdrawal.

HOW to take Tegretol:

	MORNING	MIDDAY	EVENING	BEDTIME
Take **1** tablet every 6 hours				
Day 1				
Day 2				
Day 3				
Take **1** tablet 3 times a day				
Day 4			X	
Day 5			X	
Day 6			X	
Take **1** tablet 2 times a day				
Day 7		X	X	
Day 8		X	X	
Day 9		X	X	
Take **1** tablet at bedtime				
Day 10	X	X	X	
Day 11	X	X	X	

Seek medical treatment if you have a serious drug reaction that can affect many parts of your body. Symptoms may include: skin rash, fever, swollen glands, flu-like symptoms, muscle aches, severe weakness, unusual bruising, or yellowing of your skin or eyes. This reaction may occur several weeks after you began using Tegretol. Report any new or worsening symptoms to your doctor, such as: sudden mood or behavior changes, depression, anxiety, insomnia, or if you feel agitated, hostile, restless, irritable, or have thoughts about suicide or hurting yourself.

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Core Components of Addiction Treatment

*Medications

*Counseling

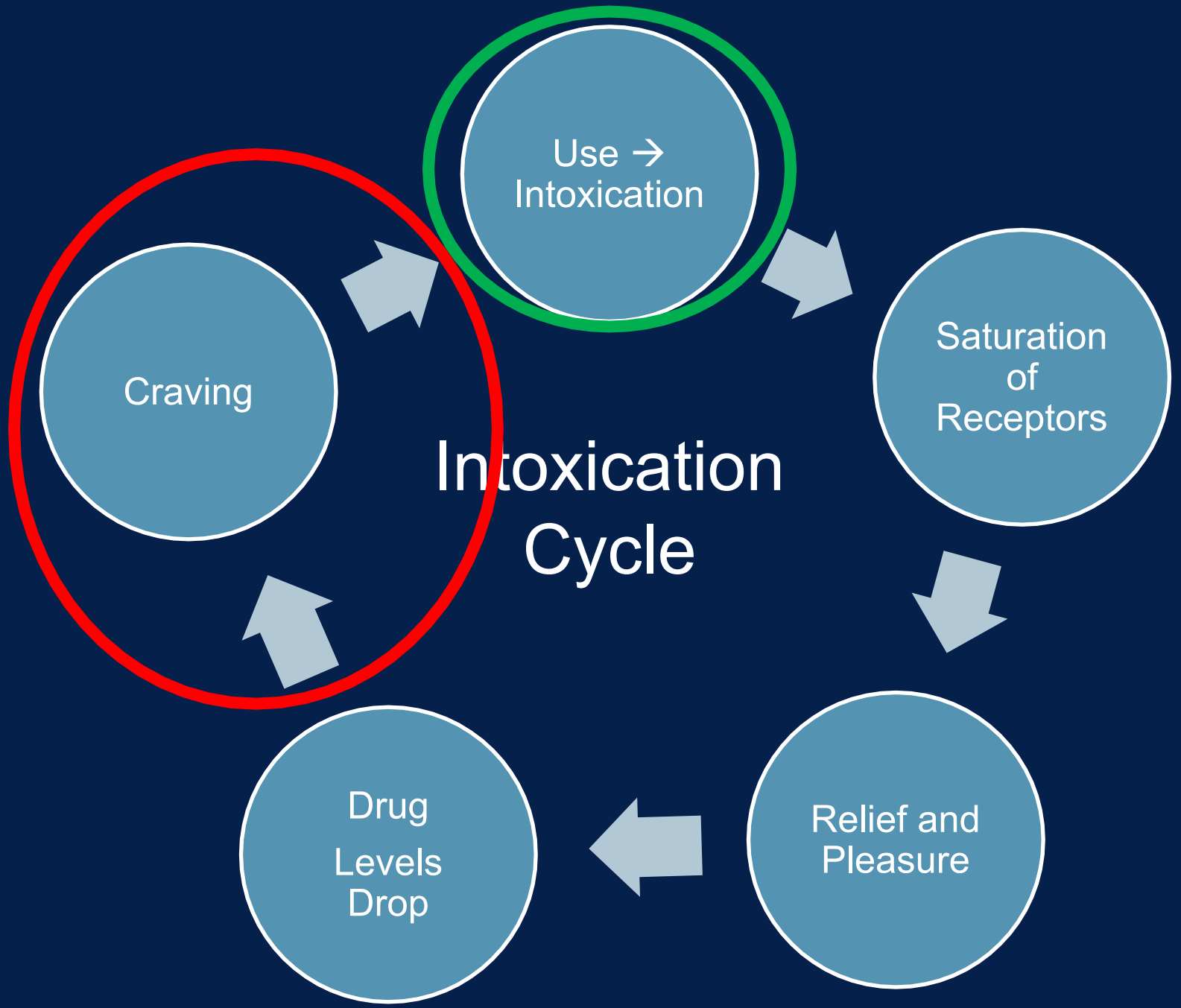
*Support

*When appropriate

Source: http://www.samhsa.gov/treatment

Medications for Addiction Treatment (MAT)

- Opioids
  - Methadone
  - Buprenorphine
  - Naltrexone
  - Naloxone* (not a maintenance medication)
- Alcohol
  - Disulfiram
  - Naltrexone
  - Acamprosate
- Tobacco
  - Nicotine
  - Bupropion
  - Varenicline
- Others
  - No FDA-approved medications (yet)


Use → Intoxication
Saturation of Receptors
Relief and Pleasure
Drug Levels Drop
Craving
Intoxication Cycle

Effectiveness: Alcohol

Acamprosate

- NNT: 12 to avoid return to drinking

Disulfiram

- No association with changes in drinking, but fewer drinking days in subset of pts

Oral Naltrexone

- NNT: 20 to avoid return to drinking, 12 to avoid heavy drinking

Naltrexone (LAI)

- NNT: 12 to avoid return to drinking

Johnson, B. A. (2007). Naltrexone long-acting formulation in the treatment of alcohol dependence. *Therapeutics and clinical risk management*, *3*(5), 741.

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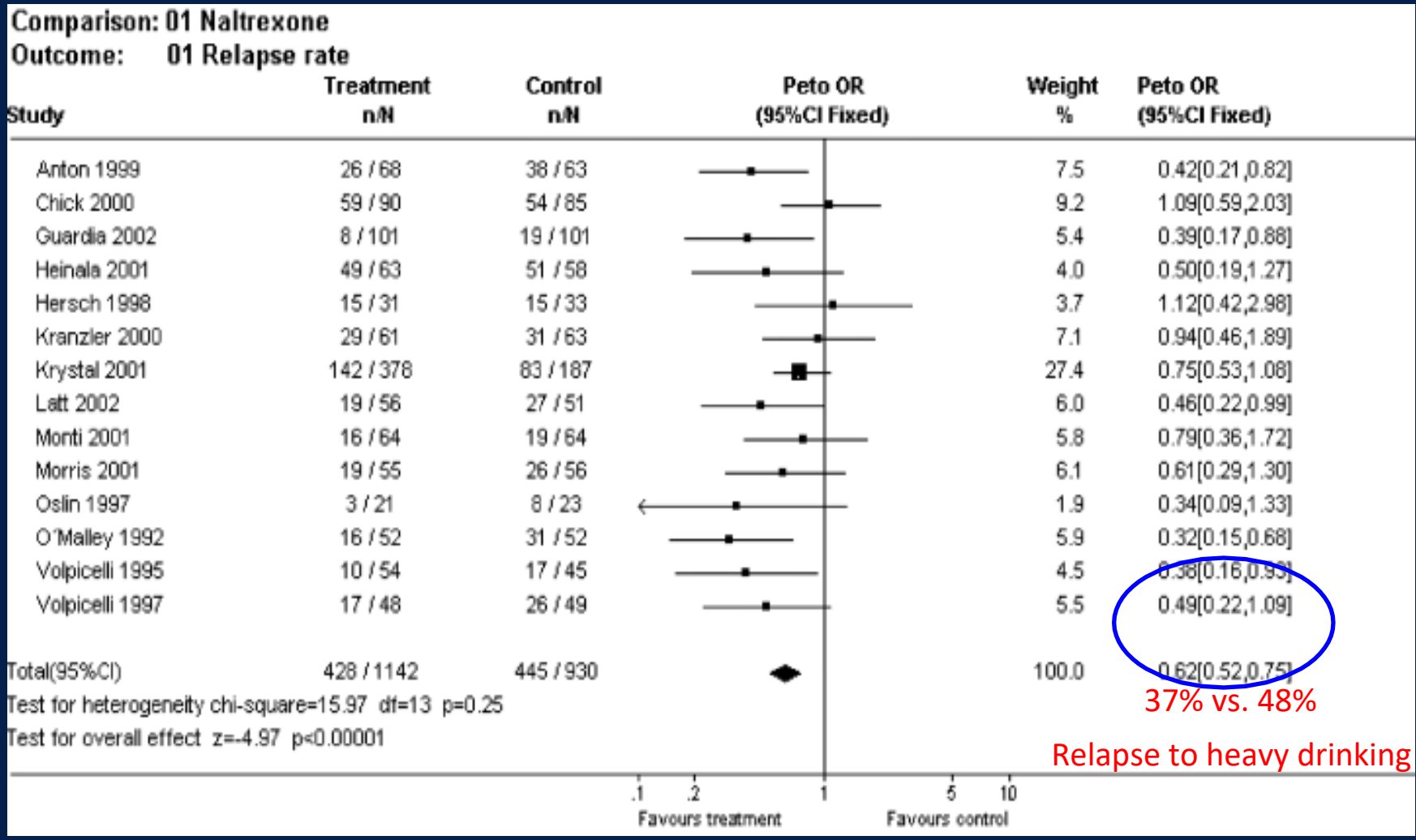
Off-Label Rx for AUD

- Topiramate
  - Known teratogen
  - Start 25mg qHS, titrate to 300mg / day (in split dosing) if pt tolerates (many don't tolerate >150mg daily)
- Gabapentin
  - 300-600mg TID used in maintenance protocols
- Baclofen
  - 30 mg/day has mixed results
- Ondansetron
  - Watch QTc
  - 4mg BID to 8mg BID

Kim, Y., Hack, L. M., Ahn, E. S., & Kim, J. (2018). Practical outpatient pharmacotherapy for alcohol use disorder. *Drugs in Context*, *7*.

Efficacy of Oral Naltrexone



37% vs. 48%

Relapse to heavy drinking

Bouza C et al. Addiction 2004;99:811

Project Combine

Table 5. Drinking Outcomes Through End of Treatment

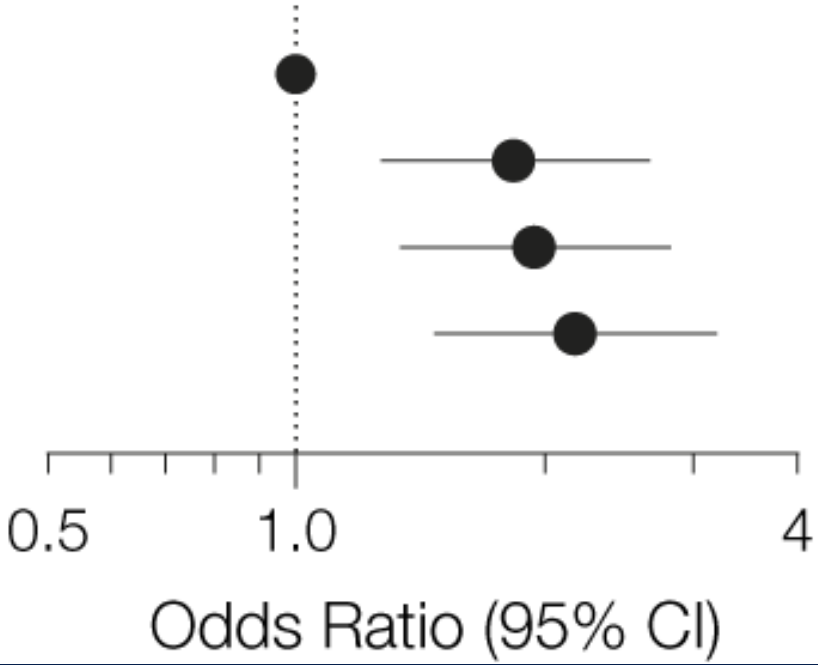
Drinking Outcomes*	No. (N = 1383)†	Medical Management (No CBI)				CBI + Medical Management				CBI Only
		Placebo (n = 153)	Naltrexone (n = 154)	Acamprosate (n = 152)	Naltrexone + Acamprosate (n = 148)	Placebo (n = 156)	Naltrexone (n = 155)	Acamprosate (n = 151)	Naltrexone + Acamprosate (n = 157)	No Pills (n = 157)
Percent days abstinent, mean (SD)‡	1376	73.8 (25.98)	80.0 (26.06)	75.6 (26.01)	80.5 (25.91)	79.8 (25.94)	75.9 (26.02)	78.2 (25.93)	77.6 (25.94)	66.6 (27.14)
Return to heavy drinking, No. events (%)§	1383	115 (75.2)	104 (67.5)	108 (71.1)	96 (64.9)	111 (71.2)	103 (66.5)	103 (68.2)	116 (73.9)	124 (79.0)
Good clinical outcome, No. events (%)‖	1294	71 (58.2)	87 (73.7)	79 (60.8)	91 (78.4)	92 (71.3)	99 (74.4)	93 (74.4)	97 (73.5)	80 (60.6)

Abbreviation: CBI, combined behavioral intervention.
*All drinking measures are adjusted for baseline drinking.
†A total of 1383 patients were randomly assigned. Other numbers represent all patients who have data available for analysis.
‡Percent days abstinent is computed monthly for the treatment period. At least 5 days of data per month were required to compute percent days abstinent; otherwise, it was considered missing.
§A heavy drinking day is defined as ≥4 drinks/d for women and ≥5 drinks/d for men.
‖See "Methods" section for definition.

Anton, R. F., O'Malley, S. S., Ciraulo, D. A., Cisler, R. A., Couper, D., Donovan, D. M., ... & Longabaugh, R. (2006). Combined pharmacotherapies and behavioral interventions for alcohol dependence: the COMBINE study: a randomized controlled trial. *Jama*, *295*(17), 2003-2017.

Project Combine

Treatment	Odds Ratio (95% CI)
Placebo Naltrexone/No CBI	1.00
Placebo Naltrexone/CBI	1.82 (1.26-2.65)
Naltrexone/CBI	1.93 (1.33-2.80)
Naltrexone/No CBI	2.16 (1.46-3.20)



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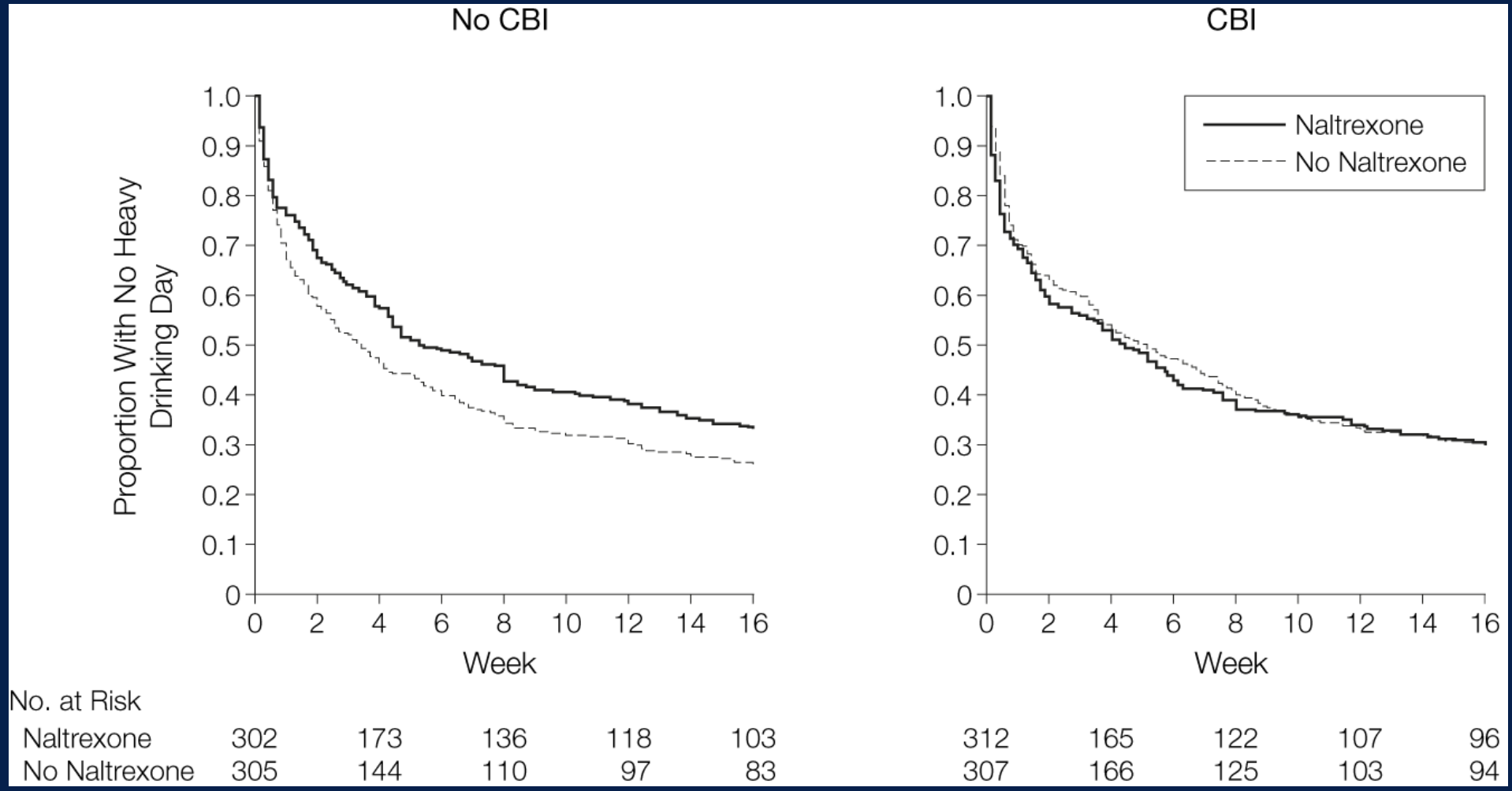
Project Combine



Anton, R. F., O'Malley, S. S., Ciraulo, D. A., Cisler, R. A., Couper, D., Donovan, D. M., ... & Longabaugh, R. (2006). Combined pharmacotherapies and behavioral interventions for alcohol dependence: the COMBINE study: a randomized controlled trial. *Jama*, *295*(17), 2003-2017.

Example of Expected Practice

- Step 4: Treat alcohol use disorder in accordance with the DHS Alcohol Use Disorder Treatment EP. Treat alcohol use disorder concurrently with medications for withdrawal management.
- Step 5: When to Refer to specialty SUD Services
  - Interested patients should be referred to an addiction counselor or social worker, or directly to the LA County Substance Use Disorder Helpline, in parallel with offering outpatient medication management services.

Health Services
LOS ANGELES COUNTY

Naltrexone

One Pill
A Day

Help reduce alcohol cravings
Cut down on how much alcohol you are drinking

HOW to take Naltrexone

Before getting started:

1. Tell staff if you have a history of liver problems like cirrhosis, swelling of your stomach, or yellowing of your eyes.

2. Do not take Naltrexone if you have taken any narcotic pain pills like heroin, fentanyl, Subutex, Suboxone, methadone or tramadol in the past week.

Instructions:

Take **1** 50mg tablet each day.
Follow-up with your medical provider in 2 to 4 weeks to discuss how naltrexone is working.

If you have stomach aches or headache:

Take **½** tablet each day for **3 days** and then **1** full tablet each day after.

Please notify the staff if you are having any worsening withdrawal and if the dose of medication you are receiving is not working to treat your withdrawal.

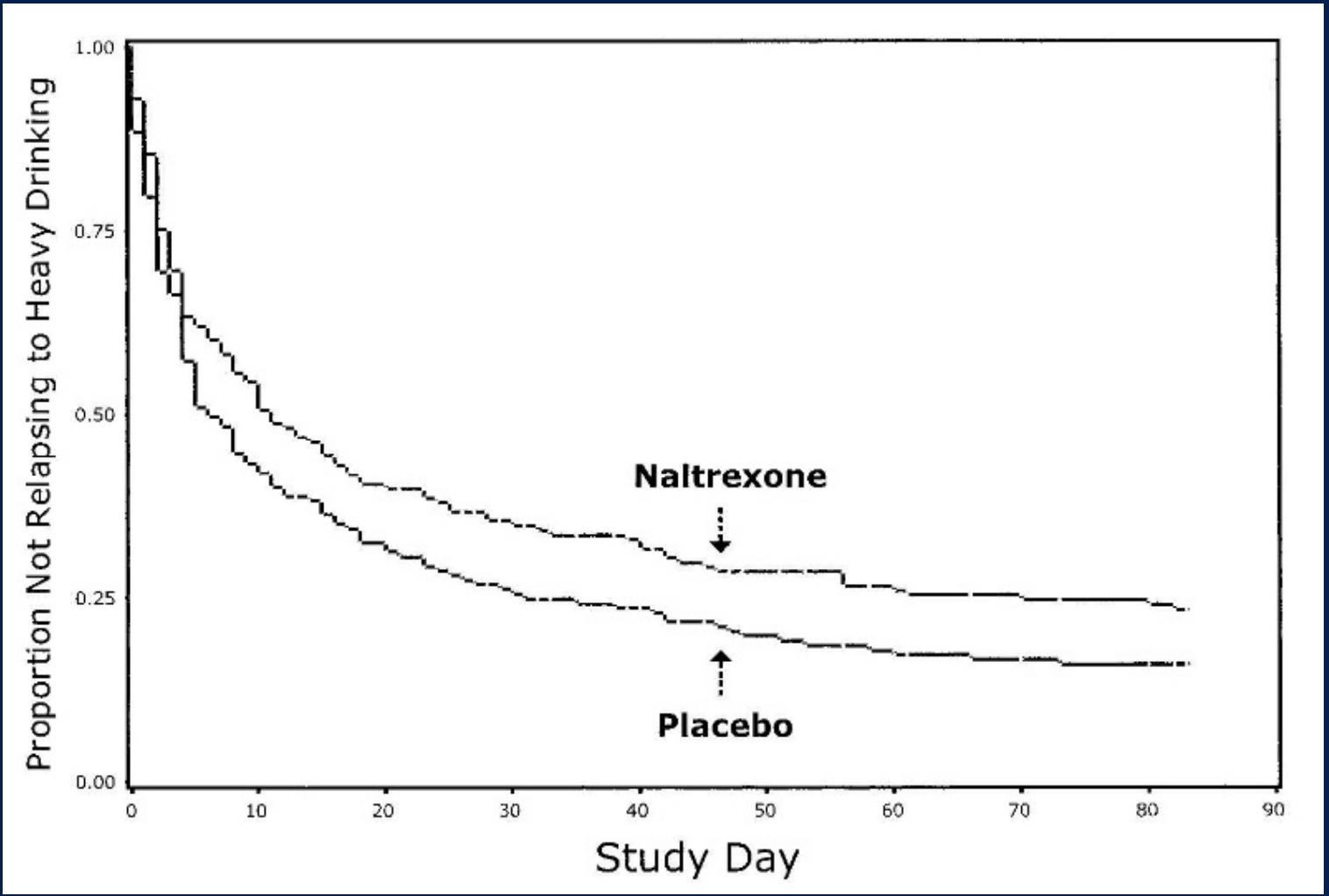
Sponsored by the National Health Foundation through a Sierra Health Foundation MAT Access Points Project award and developed in partnership with Los Angeles County Department of Health Services, CA Bridge, and the Center for Care Innovation's Addiction Treatment Starts Here program.

Naltrexone Long Acting Injection

- 380mg IM dose of naltrexone
- Injected as a suspension with microspheres that elute naltrexone over ~28 days
- Gluteal injection

https://www.youtube.com/watch?v=lZBaDCIWSwg

Naltrexone LAI and Alcohol



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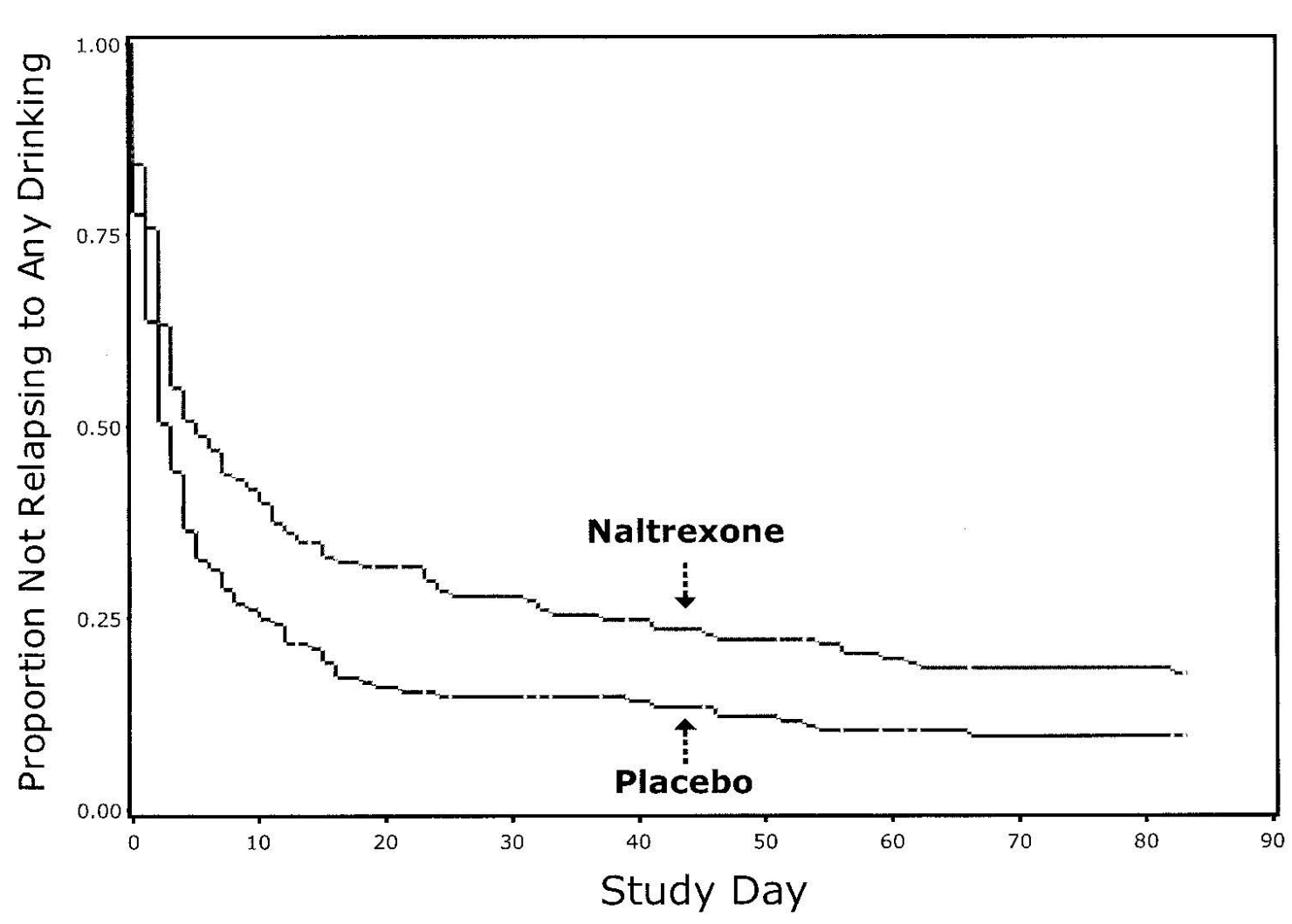
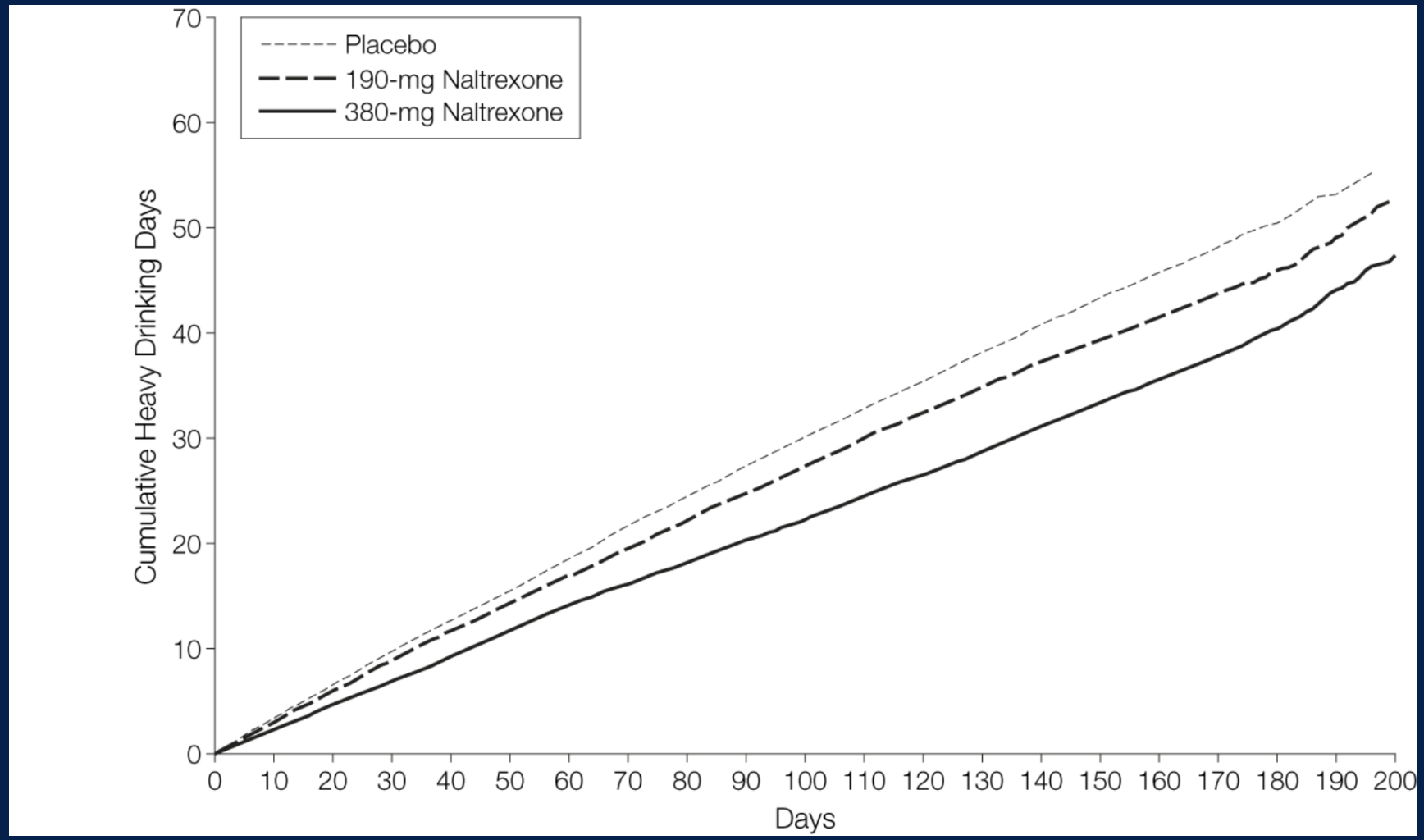
Naltrexone LAI and Alcohol



Kranzler, H. R., Wesson, D. R., & Billot, L. (2004). Naltrexone Depot for Treatment of Alcohol Dependence: A Multicenter, Randomized, Placebo-Controlled Clinical Trial. *Alcoholism: Clinical and Experimental Research*, *28*(7), 1051-1059.

Naltrexone LAI and Alcohol: fewer heavy drinking days



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Contraindications to Naltrexone Long Acting Injection

- Patients receiving opioid analgesics
- Patients with active physiologic opioid dependence
- Patients in acute opioid withdrawal
- Any individual who has failed the naloxone challenge test or has a positive urine screen for opioids
- Patients who have previously exhibited hypersensitivity to naltrexone, polylactide-co-glycolide (PLG), carboxymethylcellulose, or any other components of the diluent

4/13/2021

Ambulatory Care Network
HEALTH SERVICES • LOS ANGELES COUNTY

Medications for Addiction Treatment (MAT) Consultation

Support Available 7 days per week

- *MAT can be started in any setting. Safe via telehealth. Save lives, improve health and social functioning.*
- *DHS on-call providers help you start MAT for patients with alcohol and/or opioid use disorder.*
- *Patients benefit, even if not yet ready to quit drinking/using opioids.*
- *Reminder: offer Narcan/Naloxone in high risk settings*

MAT Consult Line:
(213) 288-9090

American Society of Addiction Medicine Founded 1954 ASAM

Health Services
LOS ANGELES COUNTY

Sponsored by National Health Foundation for MAT Access Points Project, in partnership with Los Angeles County and CA Bridge

Questions / Feedback

bhurley@ucla.edu

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