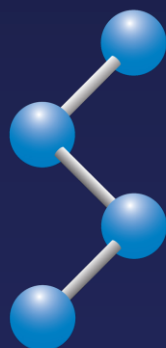


*Everything You Ever Wanted to Know
About Alcohol Treatment But Were Afraid to Ask:
A Primer for Non-Clinicians*

**What Medications Are Used
to Treat Alcohol Use Disorder?**

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T H E
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I N S T I T U T E[®]

FDA-approved drugs to treat AUD have the following characteristics:

- **Not a cure**
- **Not alcohol-substitution drugs**
- **Not addictive or habit forming**
- **Should be prescribed in conjunction with counseling**
- **Have better drinking outcomes (with counseling) than placebo (with counseling)**
- **Efficacy higher with initial abstinence: 4-7d**
- **Prescribed for < 9% of Americans with AUD**

**There are 3 FDA-approved medications for the treatment of AUD:
disulfiram, acamprosate, naltrexone**

FDA-approved Medications for AUD



Disulfiram

(Antabuse)

125-500mg orally

\$18/month generic

FDA approved in 1951

Mechanism: the alcohol-disulfiram interaction

- Inhibits the metabolism of alcohol
- Acetaldehyde quickly builds up
- Rapid onset of flushing, nausea and palpitations
- A psychological deterrent to alcohol use

Efficacy

- Medication compliance tends to be poor
- Optimized with supervised administration and compliant participants who wish to be abstinent

Safety

- Should not be given to someone in a state of alcohol intoxication, or without their full knowledge.
- Hepatotoxicity, drowsiness

FDA-approved Medications for AUD



Naltrexone (Revia, generic)
50mg orally, \$27/month
FDA approved 1994



Naltrexone (Vivitrol)
380mg extended-release
Injectable, FDA approved 2006
\$1372/month

Mechanism

- A pure opioid receptor antagonist
- If alcohol consumption is less rewarding, drinking will decrease.

Efficacy

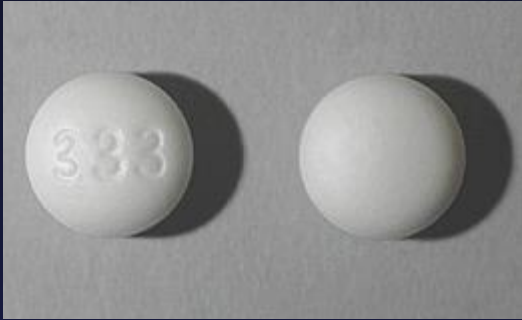
- Increases rates of no heavy drinking (NNT=8.6)
- Compliance problems with oral daily dosing
- Vivitrol once monthly extended-release intramuscular injection

Safety

Do not give to patients with current prescribed or illicit opiate use, as it will induce acute opioid withdrawal.

Hepatotoxicity

FDA-approved Medications for AUD



Acamprosate

(Campral)

1998mg orally

\$108/month

FDA approve 2004

Mechanism

- Heavy drinking and withdrawal dysregulate the balance between neuronal excitation (glutamergic) and inhibition (GABAergic).
- Restores homeostasis in NMDA-mediated glutamergic neurotransmission.
-

Efficacy

Increases rates of abstinence in studies up to 1 year long (NNT=7.5)

Safety

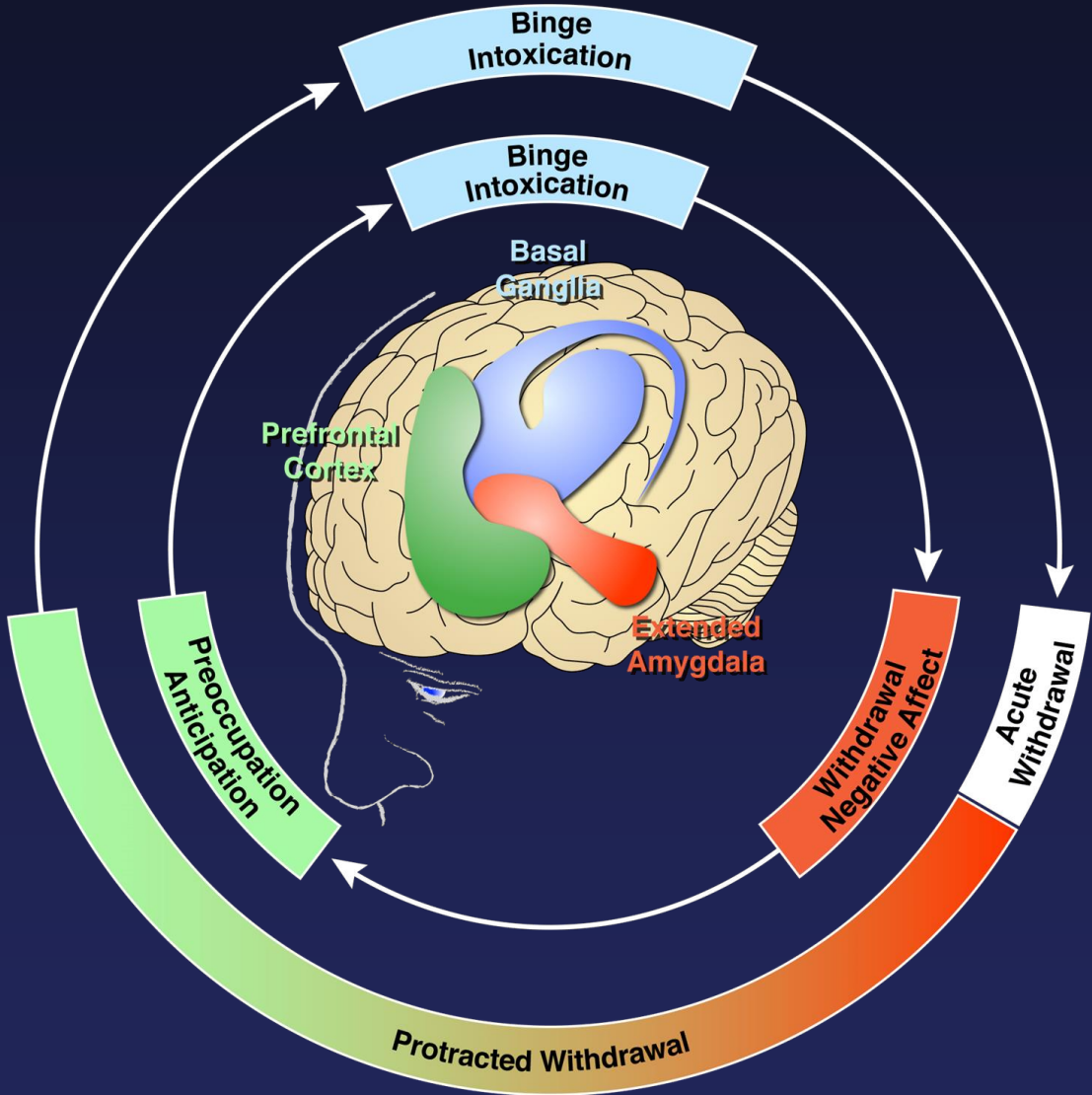
Not metabolized in the liver, excreted renally

Safe in patients with hepatic impairment.

When, How, What Drug to Prescribe to Treat AUD: Disulfiram, Acamprosate, Naltrexone?

- **Consider medication especially if there is an inadequate response to counseling**
- **Review package insert, NIAAA Clinician's Guide, talk with colleague**
- **Review drug pros and cons with patient, keeping in mind their health status, motivation to be abstinent, and their preference**
- **In case of inadequate response, meds may be used sequentially or in combination, and can be restarted in case of relapse**

Conceptual Framework for Neurobiological Bases of the Transition to Excessive Drinking with Corresponding Clinical States



Adapted with permission from: Koob GF, Volkow ND. *Neuropsychopharmacol Rev*, 2010, 35:217-238; George O, Koob GF. *Proc Natl Acad Sci USA*, 2013, 110:4165-4166.