What Medications Are Used to Treat Alcohol Use Disorder?

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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

**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