NCADD
NATIONAL COUNCIL ON ALCOHOLISM AND DRUG DEPENDENCE, INC.

Medications for Alcohol Addiction are Underutilized

Written by Geoff Kane, MD, MPH & Mark Publicker, MD Tuesday, 06 January 2015 00:00

An estimated 8.9 million Americans live at the severe end of the spectrum of alcohol use disorders. Regardless of terminology – alcohol addiction, alcohol dependence, or moderate to severe alcohol use disorder – these individuals satisfy diagnostic criteria for a potentially fatal chronic disease characterized by high post-treatment recidivism. The human and dollar costs of this situation are enormous and touch everyone; yet the magnitude of our collective response fails to match the magnitude of the problem.

For example, practical experience backed by brain science identifies two basic actions as essential to recovery; yet individuals with the disease repeatedly fail to adopt them. Research demonstrates that recovery rates are highest when addiction treatment that monitors abstinence is continuous; yet healthcare providers fail to organize for this and for the most part still treat alcohol addiction in discrete episodes. The FDA has approved three medications for the treatment of alcohol addiction; yet less than 3 percent (250,000) of those addicted to alcohol take them.

This installment of Addiction Medicine Update reviews medications available for the treatment of addiction to alcohol and the ambivalence of patients and providers about using them. Individuals addicted to alcohol and providers helping them are encouraged to consider the possibility that adding a medication will help the patient achieve lasting recovery. Independent of the pharmacology, regular visits for medication management provide structure and accountability that are likely to improve outcomes.

Keep in mind, however, that medications are not magic. Recovery requires more action than swallowing a pill. Individuals who want to get out of active addiction must break unhealthy connections to addictive substances and the circumstances of their use, and they must create healthy connections with respectful others. For some, medication provides the traction they need to take these actions, and can add a margin of safety in early recovery or times of stress. Whether they taking medication or not, even individuals in mature recovery are poised for relapse and need to maintain basic pro-recovery activities.

Disulfiram (Antabuse) was approved for the treatment of alcohol dependence in 1951. It blocks the action of an enzyme in the liver (acetaldehyde dehydrogenase) that normally helps reduce alcohol (ethanol) to carbon dioxide and water. When someone taking disulfiram drinks alcohol, the toxic chemical acetaldehyde rapidly accumulates in their body, causing flushing, nausea, vomiting, and rapid pulse. The person may collapse or even die. Disulfiram may cause liver damage. Patients on disulfiram are advised to avoid foods and skin products that contain alcohol.

Naltrexone (Revia, Depade, Vivitrol) was approved for the treatment of alcohol dependence in 1995. (It was approved for the treatment of opioid dependence in 1984.) Molecules of this medicine are strongly attracted into the opioid receptors in the brain, where they displace other opioids but do not themselves cause pleasure or relieve pain. The mechanism is the same as naloxone (Narcan) except naltrexone is longer acting. Alcohol dependent individuals on naltrexone report less craving for alcohol, likely because the pleasure of anticipating a drink is blunted. Should they drink anyway, the pleasure of drinking is blunted and they tend to drink less. Naltrexone blocks the action of opioid pain medications, precipitates withdrawal in people already on them, and may cause liver damage.

Acamprosate (Campral) was approved for the treatment of alcohol dependence in 2004. In the brain, it appears to help key neurotransmitter systems adjust to the absence of alcohol, reducing excitement due to glutamate and increasing calming due to gamma-aminobutryic acid (GABA). Alcohol dependent individuals who are off alcohol and on acamprosate are less prone to protracted alcohol withdrawal and less likely to drink in response to environmental cues. Acamprosate poses no threat to the liver and may be used when the liver is compromised. Kidney function must be adequate to process the medication. The most common side effects of acamprosate are diarrhea and gas; depression and thoughts of suicide have been reported but are rare.

In addition to these three FDA-approved medications, patients and their prescribers may want to consider other medications that have shown promise in limited studies. Baclofen (multiple brand names), gabapentin (Neurontin), nalmefene (Selincro), and topiramate (Topamax) are prescribed off label for the treatment of alcohol dependence.

Use of medication should not be a casual decision. In the best of circumstances, patient and prescriber together weigh the risks and benefits of available treatments, including the option of no medication. Both logical and emotional factors influence their final decision.

Scientific evidence shows that medication contributes to improved outcomes for individuals pursuing recovery from addiction to alcohol. This does not mean that medication is for everyone. It does mean that patients and prescribers ought to seriously consider including medication in comprehensive recovery plans. For example, a person in treatment for the first or second time who is resolute about pursuing the basics of recovery may be better off without the inconvenience and risks of medication. A similar person with less resolve may be better off with medication.

Under-treatment may occur when patients decline medication due to bias ("I don't do pills" or "I want to be totally clean") or due to overestimating themselves ("I'm strong enough to do this without medication"). Under-treatment also may occur when prescribers fail to offer medication, perhaps because they are unfamiliar with them or they underestimate the treatability of alcohol dependence.

The case for including medication is stronger when patients have been unable to maintain recovery after previous treatments, are highly impulsive, experience protracted withdrawal, must return to an environment where alcohol is accessible, or are under considerable psychosocial stress. Medication may also be prudent if resumed drinking will place the patient or public safety in jeopardy. Some patients and prescribers employ medication only during times of heightened relapse risk such as travel.

Patients and prescribers who decide to use medication may select one that is FDA-approved or off label. The past experience of the patient or provider, the scientific evidence, or the reputation of a medication may influence their choice. The results of randomized controlled trials demonstrate the efficacy of naltrexone and acamprosate but not disulfiram. However, disulfiram is probably the best choice if a patient understands how it works, perhaps has had it before, and requests it now. If a previous medication trial was not successful or the consequences of further drinking are dire, then patient and prescriber might choose a combination of medications as long as there are no issues with liver or kidney function or allergies.

Among FDA-approved medications, potential side effects and convenience may influence the choice. Whether they have active liver disease or not, some reject disulfiram and naltrexone just because they might cause liver damage. Depressed individuals sometimes avoid acamprosate even though the danger of suicidal ideation is remote. Some choose a medication based on their ability to stick with the regimen. Acamprosate is taken three times a day compared to once a day

for disulfiram and naltrexone. Naltrexone is also available as a monthly injection (Vivitrol).

Patients who want and deserve lasting recovery from addiction to alcohol and the professionals dedicated to helping them attain it are likely to achieve these goals more consistently when they allow medications to play a larger role.

> The NCADD Addiction Medicine Update provides NCADD Affiliates and the public with authoritative information and commentary on specific medical and scientific topics pertaining to addiction and recovery.