US and Norwegian Trials Compare Treatment Options for Opioid Dependence
The current opioid epidemic is destroying lives, families, and communities. Medication is widely considered to be the most effective treatment, but far too few people who could benefit are actually treated.

Two medications, buprenorphine and naltrexone—representing pharmacologically and conceptually opposite approaches—are available for office-based treatment, yet until now, patients, families, and providers have had no data to help guide their choice of treatment. New and consistent findings from two studies comparing these approaches will help.

Buprenorphine is a partial opioid agonist; it partially activates opioid receptors involved in pain relief and reward, and can block some of the effects of other opioids such as heroin. Treatment with buprenorphine can be started while a patient is still dependent on opioids, but patients taking buprenorphine remain opioid dependent and will experience withdrawal symptoms when it is discontinued. Buprenorphine can be abused or diverted and, in the US, can only be prescribed by providers with special waivers.

Naltrexone, in contrast, is a full opioid antagonist; it has no stimulating effects of its own, but blocks the effects of other opioids such as heroin. Because it blocks opioid receptors, naltrexone treatment cannot be initiated until a patient is fully detoxified, as it will precipitate sudden withdrawal symptoms. Patients using naltrexone are not opioid dependent and will not experience withdrawal when it is discontinued. Naltrexone is not abused or diverted and can be prescribed by any provider.

Dr. John Rotrosen at New York University School of Medicine and Dr. Lars Tanum at the University of Oslo and Akershus University Hospital in Norway each led trials that enrolled participants from community detoxification units and randomly assigned them to naltrexone or buprenorphine. The US study involved 570 participants treated for up to 24 weeks; the Norwegian study included 159 participants treated for up to 12 weeks.

The results indicate that once started, buprenorphine (a daily sublingual film) and naltrexone (a monthly extended-release injection) are equally effective in preventing relapse, retaining patients in treatment, and reducing illicit opioid use. Other than mild to moderate injection site reactions with naltrexone, adverse events including fatal and non-fatal overdoses were similar.
For patients who are actively using opioids, naltrexone is more difficult to initiate as many patients quit detox programs before completion. In the US study this “detox hurdle” precluded approximately one in four patients randomly assigned to naltrexone from starting treatment. The Norwegian study enrolled patients only after they had completed detoxification so there was no “detox hurdle.”

The researchers say more work is needed to overcome the detox hurdle and facilitate a smooth transition from active use of illicit opioids to naltrexone, and to improve treatment retention for both medications. In the interim, the consistent findings from these two trials should help people choose—on the basis of their lifestyle, goals and preferences—between these two-distinct office-based therapies.

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