

Buprenorphine: Treatment for Opiate Addiction Right in the Doctor's Office – August 2006

A Research Update from the National Institute on Drug Abuse

Drug abuse is a significant risk factor for HIV/AIDS in the U.S.

Opiate Addiction in the United States

Heroin, morphine, and some prescription painkillers (e.g., OxyContin, Vicodin, and Fentanyl) belong to the class of drugs known as opiates. They act on specific (opiate) receptors in the brain, which also interact with naturally produced substances known as endorphins or enkephalins—important in regulating pain and emotion. And while prescription painkillers are highly beneficial medications when used as prescribed, opiates as a general class of drugs have significant abuse liability.

Currently, approximately 1 million people in the United States are addicted to heroin (Office of National Drug Control Policy, 2000), and more than 3 million people over the age of 12 have used heroin at least once [National Survey on Drug Use and Health (NSDUH), 2004]. What's more, an estimated 1.4 million people are dependent on or abusing other opiate drugs, including prescription painkillers [NSDUH (Ibid)].

Scientific research has led to effective treatments for opiate addiction:

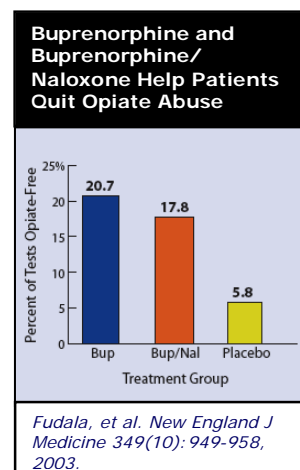
- In the 1960's, methadone gained recognition as an effective treatment for heroin addiction. Administered daily, methadone treatment is currently regulated so that only specialized clinics can provide it.
- Naltrexone, an opioid receptor blocker, joined the medications inventory in 1984. It proved to be highly effective in reversing the effects of opiate overdose, but poor treatment adherence has hampered its utility to promote abstinence.
- **Buprenorphine**, the newest medication in our toolkit, is a long-acting partial agonist that acts on the same receptors as heroin and morphine, relieving drug cravings without producing the same intense "high" or dangerous side effects.

These medications, along with effective behavioral treatments and outreach efforts, have not only reduced injection drug use in this country, but have also helped reduce the spread of HIV/AIDS—from a peak of more than 25,000 new cases in 1993 to fewer than 10,000 cases in 2003.

The Buprenorphine Success Story

NIDA-supported basic and clinical research led to the development of buprenorphine, which culminated in a large NIDA-sponsored, multisite clinical trial demonstrating its effectiveness. The trial showed that, alone or in combination with naloxone, buprenorphine significantly reduced opiate drug abuse and cravings and was a safe and acceptable addiction treatment (figure).

While these products were being developed in concert with industry partners, Congress passed the Drug Addiction Treatment Act (DATA 2000) permitting qualified physicians to prescribe narcotic medications (Schedules III to V) for the treatment of opioid addiction. This legislation created a major paradigm shift by allowing access to opiate treatment in a medical setting rather than limiting it to federally approved Opioid Treatment Programs.



The FDA approved Subutex® (buprenorphine) and Suboxone® tablets (buprenorphine/naloxone) in October 2002, making them the first medications to be eligible for prescribing under the DATA 2000. To date, nearly 10,000 physicians have taken the training needed to prescribe these two medications, and nearly 7,000 have registered as potential providers.

Buprenorphine's Pioneering Contributions to Addiction Treatment

- *Buprenorphine's novel formulation with naloxone, an opioid antagonist, limits abuse and diversion potential.* Scientific breakthroughs led to this formulation, which produces severe withdrawal symptoms in those who inject it to get "high" but no adverse effects when taken orally, as prescribed.
- *Buprenorphine represents a health services delivery innovation.* The development of buprenorphine and its authorized use in physicians' offices gives opiate-addicted patients more medical options and extends the reach of addiction medication to remote populations. Its accessibility may even prompt earlier attempts to obtain treatment.

Reaching Into the Community

Through our unique "blending" partnership with SAMHSA, NIDA is developing and disseminating protocols to educate multidisciplinary treatment professionals about buprenorphine (<http://www.ctndisseminationslibrary.org/display/85.htm>). Blending Teams of NIDA researchers, treatment practitioners, and trainers have completed two buprenorphine training packets:

- To increase overall awareness of buprenorphine therapy, and
- To instruct physicians and treatment practitioners in implementing a 13-day detoxification intervention for opiate-dependent patients.



Through these efforts, buprenorphine has helped change the mindset of many community treatment providers previously unwilling to consider the use of medications to treat drug addiction. Some of these programs now regularly use buprenorphine to assist in opiate detoxification and treatment maintenance.

Where We Are Going Next

- We will continue to test the safety and efficacy of buprenorphine in other affected populations, including pregnant women, adolescents, and patients addicted to opiate analgesics.
- Working with SAMHSA's Addiction Technology Transfer Centers (ATTCs), State Directors, and other stakeholders, we are continuing to spread the word about buprenorphine to more proactively address the urgent needs of drug addiction.
- We are striving to increase the use of this and other addiction medications in different settings and locales, including in the U.S. criminal justice system and in countries where injection drug use is still a primary mode of HIV transmission.

For further information please visit NIDA on the web at www.drugabuse.gov or contact:

Public Information and Liaison Branch
Office of Science Policy and Communications
Phone 301-443-1124/Fax 301-443-7397
information@nida.nih.gov