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CLIENT CHOICE IN THE TREATMENT OF HEROIN AND PRESCRIPTION OPIOID DEPENDENCE

A Guide for Individuals, Families, Service Providers and Law Enforcement in St. Louis

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CLIENT CHOICE IN THE TREATMENT OF HEROIN AND PRESCRIPTION OPIOID DEPENDENCE

For an individual addicted to heroin or prescription pain killers, achieving and maintaining abstinence is probably the greatest challenge he or she will ever face. Most persons with opioid addiction tell themselves over and over again: “I need to stop. This is the last time” but find themselves living out the “one last time” illusion day after day, month after month, and year after year while the rest of their lives—relationships, employment, self-esteem, health, financial and legal status, are destroyed by the disease of addiction. Most persons with heroin addiction have gone to treatment at least once, and many have achieved some success, only to relapse shortly afterward. In fact, *more than one out of every five people who enroll in treatment for heroin or opioid addiction in the United States have already been to treatment five or more times.*¹

The purpose of this paper is to provide individuals, families, and service providers in St. Louis the most up-to-date information about the current opioid epidemic and about evidence-based treatment options that can assist persons with heroin or prescription opioid addiction to escape the revolving door of rehab and relapse.

The Current Epidemic of Heroin and Prescription Opioid Dependence

From 2002 to 2009 the prevalence of heroin dependence in the United States rose from 220,000 to 356,000 while the prevalence of prescription opioid dependence rose from 949,000 to 1,364,000.^{2,3} In most localities, heroin and prescription opioid abuse go hand-in-hand. Based on availability, the street value of each drug fluctuates, and in areas such as St. Louis, cheap, potent heroin costs only a fraction of the price of diverted prescription medication. Clients at many treatment centers report initiating heroin

¹ SAMHSA. (2008b). *Treatment Episode Data Set -- Admissions (TEDS-A) -- Concatenated, 1992 to Present [Computer file]*. ICPSR25221-v3. Office of Applied Studies. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2010-05-04. doi:10.3886/ICPSR25221.

² SAMHSA. (2002). *National Survey on Drug Use and Health, 2002 [Computer file]*. ICPSR03903-v3. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2010-11-16. doi:10.3886/ICPSR29621.

³ SAMHSA. (2009). *National Survey of Drug Use and Health, 2009 [Computer File]*. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2010-11-16. doi:10.3886/ICPSR29621.

use only after developing an addiction to prescription pain killers that they could no longer afford to maintain.⁴

The heroin and opioid epidemic in Missouri is disproportionately affecting the young. From 1992 to 2008, the percentage of persons in treatment for opioid dependence who were under age 30 increased from 19% to 53% while the overall proportion of persons enrolling for opioid dependence increased from 3% to 10%.⁵ Opioid abuse often begins in adolescence. Between 1991 and 2009, the percentage of US high school students who reported abusing prescription opioid medication increased from 6.6% to 13.2%.⁶

The increase in demand for cheap heroin has corresponded to an increase in illegal production. South America and Mexico source 98% of the heroin sold in the United States. From 2004 to 2008, heroin production from Mexico increased fourfold, from 8.6 to 36.0 metric tons with no reduction in South American production. In addition to increased availability the current production of heroin is reaching record levels of purity, making it more addictive and deadly.⁷

The dangers of this opioid epidemic are obvious in the mortality and morbidity statistics. An opioid overdose often causes fatal respiratory depression. From 2004 to 2008, emergency room visits involving non-medical use of narcotic pain relievers more than doubled from 145,000 to 306,000.⁸ The Drug Abuse Warning Network in St. Louis City and County recorded 113 deaths from opioid overdose in 2003 and 226 in 2008, a 100% increase in just 5 years. Just over half of the 2008 deaths in St. Louis involved heroin. The Center for Disease Control has shown a similar change in nationwide opioid deaths—from just fewer than 8000 deaths in 2002 to almost 14,000 deaths in 2007. More than 80% of the 2007 overdose deaths were attributed to opioid analgesics with the remainder attributed to heroin.⁹

Treatment Options for Persons with Heroin and Prescription Opioid Dependence

The first thing a person, family, or service provider must know about heroin and prescription opioid dependence is that it is a chronic disease requiring long-term treatment. One way to think about addiction is as a violent allergic reaction to the idea of getting high. Someone who is allergic to bees has

⁴ U.S. Department of Justice. (2010). *National Drug Threat Assessment, 2010*. Johnstown, PA: National Drug Intelligence Center. Product No. 2010-Q0317-001.

⁵ SAMHSA. (2008b). *Treatment Episode Data Set -- Admissions (TEDS-A) -- Concatenated, 1992 to Present [Computer file]*. ICPSR25221-v3. Office of Applied Studies. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2010-05-04. doi:10.3886/ICPSR25221.

⁶ Johnston, L., O'Malley, P., Bachman, J., & Schulenberg, J. (2010). *Monitoring the future national survey results on drug use, 1975-2009: Volume I, Secondary school students*. NIH Publication No. 10-7584. Bethesda, MD: National Institute on Drug Abuse.

⁷ U.S. Department of Justice. (2010). *National Drug Threat Assessment, 2010*. Johnstown, PA: National Drug Intelligence Center. Product No. 2010-Q0317-001.

⁸ SAMHSA. (June 18, 2010). *The DAWN Report: Trends in emergency department visits involving nonmedical use of narcotic pain relievers*. Rockville, MD: Office of Applied Studies.

⁹ Center for Disease Control and Prevention. (2010). *Unintentional Drug Poisoning in the United States*. Atlanta, GA: Department of Health and Human Services.

a violent reaction when the stinger and poison penetrate her skin. Her previously well-functioning heart and lungs malfunction so violently that she may die without emergency treatment. Since addiction is a brain disease, heroin does not have to enter the body to cause an allergic reaction. It has only to penetrate the mind of someone addicted. Persons with heroin addiction have an allergic reaction to the very idea of using heroin--when they *perceive* in their environment or in their imagination the *real possibility* of getting high. The allergenic idea causes such a violent malfunctioning of their motivational system--such an uncontrollable attraction to the drug--that every good intention to stay clean and sober is overridden by the drive to use.

This allergic reaction is caused by a *real possibility* of getting high because our motivational system typically shifts into DRIVE only in pursuit of attainable rewards. When the possibility of getting high is removed, the idea of using heroin may be present, but it does not cause the intense physical cravings that are triggered by the concreted possibility of use. That is why people in inpatient treatment programs often report little difficulty with cravings. The knowledge that opioids are unavailable short-circuits the drive state until they re-enter their natural environment.

The fundamental task of recovery is to create a lifestyle with so many physical, cognitive, and interpersonal obstacles to acquiring and using opioids that the idea of using opioids loses its potency. Obviously this task is extremely difficult, especially given the widespread availability of opioids in the St. Louis region. Recovery requires a radical change in lifestyle—in the people one spends time with, the places he frequents, and the activities he pursues. It requires cutting off ties with anyone who reminds him of using and spending time *exclusively* with people who support his recovery and hold him accountable for his decisions—not just decisions to use opioids but even small decisions that increase the risk of use.

Psychosocial Treatment and 12-Step Support for Persons Recovering from Addiction

Cognitive Behavioral and Motivational Enhancement therapies have emerged as the standard evidence-based psychosocial interventions used in Medication Assisted Treatment and addiction treatment in general.¹⁰ Current research has not established one or the other of these approaches to be superior, but programs that work out of these theoretical models are likely to have a positive effect on client outcomes.¹¹ Programs that incorporate comprehensive case management and connect clients to appropriate services such as housing, medical care, and legal and parenting assistance are also likely to help clients meet their treatment goals.¹²

¹⁰ Center for Substance Abuse Treatment. (2005). *Medication-assisted treatment for opioid addiction in opioid treatment programs*. Treatment Improvement Protocol (TIP) Series 43. DHHS Publication No. (SMA) 05-4048. Rockville, MD: Substance Abuse and Mental Health Services Administration.

¹¹ Morgenstern, J., & McKay, J. R. (2007). Rethinking the paradigms that inform behavioral treatment research for substance use disorders. *Addiction, 102*, 1377-89.

¹² Center for Substance Abuse Treatment. (2005). *Medication-assisted treatment for opioid addiction in opioid treatment programs*. Treatment Improvement Protocol (TIP) Series 43. DHHS Publication No. (SMA) 05-4048. Rockville, MD: Substance Abuse and Mental Health Services Administration.

12-step programs like NA and AA provide persons with addiction social support to help them restructure their lives to prevention of relapse. Fellow members coach one another in the skills of relapse prevention and help one another to set up physical, mental, and social obstacles to use. 12-step groups often assist members to develop new ways of thinking, feeling, coping with stress, and relating to others. Persons who give themselves whole-heartedly to 12-step programs can often escape the destruction of the relapse cycle and enter upon a life that is meaningful and rewarding. Their lives can take on profound purpose as they begin to help others struggling with addiction to free themselves for a life of recovery.

Medications Assisted Treatment for Heroin Dependence

Although psychosocial interventions and mutual support programs are important resources in a comprehensive recovery program, there is no good evidence that they are sufficient to treat persons addicted to heroin. In the early stages of recovery, triggers are too plentiful and the DRIVE state too powerful to arrest using psychosocial or mutual support interventions alone. Medications have been developed to reduce the strength of cravings as a person develops the skills of relapse prevention. Persons who commit to a medication regimen in addition to psychosocial treatment and mutual support are much more likely to achieve and maintain abstinence while they are completing the foundational work of recovery.

There are basically 3 medications currently available for the treatment of heroin addiction: methadone (an opioid agonist), buprenorphine (a partial opioid agonist), and naltrexone (an opioid antagonist). Read “agonist” as “activator” and you will get some sense of the difference between them. An agonist activates its target receptor, a partial agonist activates the receptor partially, and an antagonist blocks the receptor to prevent activation. Partial agonists also compete with agonists that are present at the receptor site to block or diminish their effects.

Methadone, buprenorphine, and naltrexone are all available through state funded programming in the St. Louis area. The attached table will explain how these medications can be used to prevent relapse as a person builds a long-term plan of recovery. For each medication, the following topics will be considered: *Pharmacology, Motivation and Compliance, Abuse Potential, Medically Supervised Withdrawal or Cessation, 12-Step Compatibility, Use and Availability, Online Resources, and Summary Pros and Cons.*

See attached table.

Summary: Points to Consider

- Relapse to heroin and opioid use is almost guaranteed without a robust, long-term program of counseling, mutual support, and relapse prevention. Medications are one crucial component of comprehensive opioid treatment but are insufficient on their own. 12-step programs can provide a foundation for life-long support in recovery.
- Individuals, families, and service providers should be careful not to stigmatize the use of any medication that is effective in reducing the symptoms of a disease. Rushing persons into

abstinence-based treatment for opioid dependence can put them at unnecessary risk for relapse and death. Treatment for opioid dependence should focus on gradual, sustained progress toward an individual's concrete goals and utilize whatever interventions support this progress. Successful recovery happens over years, not weeks or months.

- Saint Louis is fortunate to have a wide range of state-funded treatment options for opioid dependence. Assisting persons to access and understand these treatment options is the first step in helping them free themselves from the misery of heroin and other opioid addiction.
- If you have any questions about the topics discussed in this paper or require additional information, please feel free to contact the author:

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Medically Assisted Treatment Options for Heroin and Opioid Dependence

	Methadone	Buprenorphine (Suboxone® / Subutex®)	Naltrexone (Vivitrol®)
Pharmacology	<ul style="list-style-type: none"> • An opioid agonist that activates the brain's opioid receptors and satisfies cravings for heroin without need to use. • Can create a steady state without drug preoccupation or intoxication or withdrawal. • Can increase tolerance so that using heroin becomes cost prohibitive and relapse loses its incentive.¹³ 	<ul style="list-style-type: none"> • Partial agonist, activating the brain's opioid receptors while binding to and blocking the effect of opioid agonists such as heroin and methadone. • Cannot be combined with other opioids to get high. • Manifests a ceiling effect. Additional buprenorphine use causes no additional respiratory depression. • Use with respiratory depressants such as alcohol and benzodiazepines can contribute to fatal respiratory depression. 	<ul style="list-style-type: none"> • Opioid antagonist that binds to and blocks the brain's opioid receptors, creating a neural blockade. • Does not activate the opioid receptors, producing no high nor chemical dependency. • Any opioid use will have little if any felt effect, preventing someone with opioid dependence from getting high. • Cannot be taken until person is fully detoxed from all opioid agonists, including buprenorphine or methadone. • Starting prematurely will precipitate withdrawal, but once fully detoxed, naltrexone will have little if any felt effect and will produce no physical dependence.
Formulations	Methadone	<p>Subutex®</p> <ul style="list-style-type: none"> • A single entity buprenorphine product. <p>Suboxone®</p> <ul style="list-style-type: none"> • Combines buprenorphine and naloxone in a 4:1 ratio. • Naloxone is a brief-acting opioid antagonist used in hospitals to reverse the effects of an opioid overdose. • Used in place of Subutex® with clients who have a history of IV drug use. • Injecting will precipitate opioid withdrawal. 	Vivitrol® <ul style="list-style-type: none"> • Injectable form of naltrexone. • Blockades the opioid receptors for up to 28 days, greatly ameliorating the problem of medication compliance. • Individuals must make the monthly decision to comply with a medication that prevents the use of opioids and offers no felt reward.
Motivation and Compliance	<ul style="list-style-type: none"> • Stopping methadone causes painful withdrawal. • Often called “Substitution” or “Replacement” therapy. • Substitution entails maintenance on a highly addictive medication while increasing functioning. 	<ul style="list-style-type: none"> • Inherently rewarding and possesses addictive qualities that can motivate treatment compliance. • Requires a higher degree of self-monitoring than methadone treatment as it is more often self-administered. 	<ul style="list-style-type: none"> • Naltrexone is not inherently rewarding or motivating. Cravings and withdrawal symptoms do not remind a person to take his or her next dose, and stopping naltrexone will cause no withdrawal. • Naltrexone is suitable only for clients who are internally motivated to reduce their relapse risk through strict medication compliance.

¹³Ries, R.K., Fiellin, D.A., Miller, S.C., & Saitz, R. (2009). *Principles of Addiction Medicine, Fourth Edition*. Philadelphia: Lippincott Williams & Wilkins.

	Methadone	Buprenorphine (Suboxone® / Subutex®)	Naltrexone (Vivitrol®)
Abuse Potential	<ul style="list-style-type: none"> • From 1999 to 2006 the annual rate of methadone-related fatalities rose from 790 to 5,420. ¹⁴ • These increased fatalities were due <i>not</i> to the use of methadone for opioid treatment, but the increased use of methadone for pain management. ¹⁵ 	<ul style="list-style-type: none"> • Cannot be used to get high, but those not motivated can use buprenorphine to prevent withdrawal while pursuing and using opioids. • Diversion is a problem as private physicians can prescribe. • Between 2006 and 2010, buprenorphine seizures by local, state, and federal law enforcement quintupled. Between 2006 and 2009 the national number of emergency room visits associated with buprenorphine tripled to 14,226. ¹⁶ 	<ul style="list-style-type: none"> • Non-addictive, non-habit-forming, and non-psychoactive with no abuse potential and no street value.
Medically Supervised Withdrawal	<ul style="list-style-type: none"> • Most persons attempt to taper from methadone one or more times during treatment. Most relapse to heroin use either during or after the tapering process. ¹⁷ • “Medically supervised withdrawal” is identified as an <i>optional</i> phase of treatment to be attempted only when at least two years of stability in abstinence as well as in medical and mental health, employment, legal status, and primary support system. ¹⁸ 	<ul style="list-style-type: none"> • “Maintenance can be relatively short-term (e.g., <12 months) or a lifetime process... Following successful stabilization, decisions to decrease or discontinue buprenorphine should be based on a patient’s desires and commitment to becoming medication-free, and on the physician’s confidence that tapering would be successful.” ¹⁹ • Commitment to abstinence and stability in medical and mental health, employment, legal status, and primary support system should be assessed prior to the initiation of medically supervised withdrawal. 	<ul style="list-style-type: none"> • No clear guidelines on the optimal length of naltrexone treatment for opioid dependence. • Treatment should not cease until a person has one to two years of stable abstinence from alcohol and illegal drugs and stability in medical and mental health, employment, legal status, and primary support system. • After several months or years, a much lower tolerance for opioids is developed, leading to a higher risk for overdose and death. • <i>Naltrexone should only be taken by clients who are committed to and able to use it until their lives have been radically restructured to prevent relapse. This restructuring usually takes years, not weeks or months.</i>
12 Step Compatibility	<ul style="list-style-type: none"> • Because methadone is addictive, persons taking methadone are often poorly received in 12-step groups. • Methadone Anonymous groups have been formed for persons taking methadone. 	<ul style="list-style-type: none"> • Because buprenorphine is addictive, persons taking buprenorphine are often poorly received in 12-step programs. • Persons on buprenorphine maintenance are likely to receive more support at methadone anonymous meetings. 	<ul style="list-style-type: none"> • Individuals with opioid dependence can combine the strengths of abstinence-based 12-step programs with those of Medication Assisted Treatment. • 12-step participation improves a person’s chances of maintaining abstinence.

¹⁴ Warner, M., Chen, L.H., & Makuc, D.M. (2009). *Increase in fatal poisonings involving opioid analgesics in the United States, 1999-2006*. NCHS data brief, no. 22. Hyattsville, MD: National Center for Health Statistics.

¹⁵ SAMHSA. (2004). *Methadone-associated mortality: a report of a national assessment*. Rockville, MD: Center for Substance Abuse Treatment, SAMHSA publication no. 04-3904.

¹⁶ Drug Enforcement Agency. (2011). *Buprenorphine*. Springfield, VA: Office of Diversion Control.

¹⁷ Magura, S., & Rosenblum, A. (2001). Leaving Methadone treatment: lessons learned, lessons forgotten, lessons ignored. *The Mount Sinai Journal of Medicine*, 68(1), 62-74.

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	Methadone	Buprenorphine (Suboxone® / Subutex®)	Naltrexone (Vivitrol®)
Use and Availability	<ul style="list-style-type: none"> • Typically, individuals must go to a methadone clinic daily to receive their dose. • Federal guidelines allow clients who demonstrate good compliance after nine months to take up to six doses a week home for self-administration.²⁰ • Due to federal and state funding, methadone is widely available to persons with opioid dependence at little or no cost. 	<ul style="list-style-type: none"> • Certified physicians are permitted to prescribe Suboxone® and Subutex® in a regular doctor’s office, allowing patients to self-administer the at home, eliminating the need for daily clinic trips and reducing the stigma associated with Medication Assisted Treatment. • Since 2003, can be administered by Opioid Treatment Programs (OTP) that administer methadone, making availability more widely available. • Publicly funded in the State of Missouri and available through OTPs and a partnership between Assisted Recovery Centers of America, LLC (ARCA) and comprehensive state funded programs. 	<ul style="list-style-type: none"> • Naltrexone and Vivitrol® were approved for the treatment for the treatment of opioid dependence in 1984 and 2010 respectively. • Vivitrol®’s out-of-pocket cost nears \$1000/ month; however, the State of Missouri is at the forefront of the nation in making naltrexone and Vivitrol® treatment available through State-funded programs. • Naltrexone and Vivitrol® are available through a partnership between ARCA and comprehensive state-funded treatment programs, proving persons without financial means unprecedented access to the newest pharmacological treatment for opioid dependence.
Pros	<ul style="list-style-type: none"> • Effectively reduces/ eliminates craving. • Chemically rewarding/ motivating. • Widely available and publically funded. 	<ul style="list-style-type: none"> • Effectively reduces heroin craving. • Safer than methadone. • Naturally rewarding / motivating. • Available from prescribing physicians for administration at home or through publicly funded programs. • Easier to detox from than methadone. 	<ul style="list-style-type: none"> • Reduces heroin cravings. • Blocks the heroin high. • Non-addictive. • Non-abusable. • Prescribed for in-home administration or in a 28-day depot injection. • Consistent with 12-step philosophy of abstinence from addictive drugs.
Cons	<ul style="list-style-type: none"> • Requires daily clinic visit (initially). • Highly addictive and widely abused. • Fatal if used incorrectly. • Difficult to detox from. • Not well-accepted by 12-step groups. 	<ul style="list-style-type: none"> • Highly addictive. • Widely diverted and abused. • Not well-accepted by 12-step groups. • Expensive without insurance or publicly funded MAT. 	<ul style="list-style-type: none"> • Requires prior detoxification. • Not naturally rewarding/ motivating. • Reduced tolerance increases risk of overdose after medication is stopped. • Expensive without insurance or publicly funded MAT.
Online Resources	<p>http://www.methadonesupport.org http://www.aatod.org http://dpt2.samhsa.gov/treatment/directory.asp</p>	<p>http://buprenorphine.samhsa.gov http://buprenorphine.samhsa.gov/bwns_locator/ http://www.aatod.org http://dpt2.samhsa.gov/treatment/directory.aspx http://www.arcamidwest.com</p>	<p>http://www.vivitrol.com http://providerlocator.vivitrol.com http://www.arcamidwest.com</p>

²⁰ Ries, R. K., Fiellin, D. A., Miller, S. C., & Saitz, R. (2009). *Principles of Addiction Medicine, Fourth Edition*. Philadelphia: Lippincott Williams & Wilkins.