Residential Substance Abuse Treatment (RSAT)

Training and Technical Assistance

RSAT Training Tool: Medication Assisted Treatment (MAT) for Offender Populations

This curriculum is a cross-disciplinary training designed to increase knowledge and awareness of Medication Assisted Treatment (MAT), its application and its effectiveness in the treatment for opioid addiction and alcoholism. This manual includes information specific to the use of medications to support addiction recovery among the offender population, especially as they re-enter and access community-based treatment.

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AHP Advocates for Human Potential, Inc.

TASC Treatment Alternatives for Safe Communities

ACJS AdCare Criminal Justice Services, Inc.

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RSAT Training Tool:

Medication Assisted Treatment (MAT) for Offender Populations

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by Niki Miller, M.S. CPS

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Phillip Barbour of TASC

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RSAT Training Tool:
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I. Introduction

Audience:

Residential Substance Abuse Treatment (RSAT) program staff, addiction professionals, case managers, correctional staff, probation/parole officers, mental health counselors, volunteers, peer recovery support specialists, and Chaplains.

Purpose:

This curriculum is a cross-disciplinary training designed to increase knowledge and awareness of Medication Assisted Treatment (MAT), its application and its effectiveness in the treatment for opioid addiction and alcoholism. This manual includes information specific to the use of medications to support addiction recovery among the offender population, especially as they re-enter and access community-based treatment.

The National Institute on Drug Abuse (NIDA) has outlined important principles of evidence-based addiction treatment. One of the principles applies here: ***"No single treatment is appropriate for everyone" (2006, p. 3).***

As the research has made increasingly clear, treatment and recovery pathways should be individualized, driven by comprehensive assessment and client choice. MAT is not the answer for everyone, but it is an option, and an effective one for many. This training tool is intended to ensure all RSAT staffs are able to support diverse recovery pathways and work with a wide range of community-based providers on behalf of offenders, including the medical community, and federally certified physicians and programs dispensing medications that support recovery.

LEARNING OBJECTIVES:

The goals of this tool are to:

1. Increase knowledge about the effectiveness of MAT for substance abuse disorders among criminal justice populations.
2. Provide an overview of different MAT approaches and medication protocols for opioid addiction, including medically supervised withdrawal (detoxification) and maintenance.
3. Familiarize participants with specific medications approved by the FDA for medication assisted treatment of alcohol and of opioid addiction in the US.
4. Discuss the laws, regulations and oversights that apply to dispensing medications that are controlled substances and precautions against misuse and diversion.
5. Identify the categories of individuals that potentially do well with various medications and the circumstances where they may be contraindicated.
6. Increase RSAT staff's ability to support clients who choose medication assisted treatment as a pathway to recovery and to work with MAT providers in their communities.

The modules contain participatory exercises, resources for additional learning, and a review of the topics covered. While it is impossible to address all aspects of MAT in this brief manual, the resources listed at the end of each module offer more complete information.

Why learn about MAT?

MAT is pharmacotherapy used to support treatment and recovery efforts for people seeking to overcome addictive disorders. It combines prescribed medications **with** counseling and behavioral therapies, monitoring, community-based services, and recovery support. This provides the client with a comprehensive treatment approach for the bio-psychosocial condition known as addiction. As suggested in its name, MAT is designed to **assist**, not replace other treatment and recovery efforts.

Research supports the effectiveness of medication assisted treatment (CSAT, 2005). Some medications provide significant relief from craving and withdrawal symptoms,

reducing the preoccupation with using or drinking, and allowing the offender to derive maximum benefit from supportive services such as counseling, mental health treatment, medical services, vocational rehabilitation and community support. MAT for opioid addiction has effectively helped to facilitate recovery for many offenders. When a qualified medical provider prescribes medication for opioid addiction, retention and treatment engagement tend to improve (NIDA, 2011).

In some arenas, the use of medication for the treatment of opioid addiction may be viewed as substituting one drug for another. Medications used to treat alcoholism have been regarded with a bit less skepticism. This training is intended to help dispel some of the biases against MAT, especially opioid replacement therapy and medications such as methadone and buprenorphine.

People in medication assisted recovery often face stigma and judgment from employers, family and friends, and even from others in recovery. The legitimacy of their recovery may be questioned; however, the research suggests MAT, along with behavioral approaches and ongoing support, is more effective than behavioral approaches alone (NIH, 1997). The data regarding criminal justice populations are also compelling. Medication assisted treatment for opioid users is associated with reductions in recidivism, incarceration and decreased crime and HIV and Hepatitis C infection (Egli et al., 2009; NIDA, 2011). These effects are many times greater than the effect of behavioral treatments without medications (Marlowe, 2003). Despite all the evidence, MAT for justice-involved individuals remains one of the most under-utilized tools for reducing recidivism (Prendergast, 2009).

When MAT is part of a comprehensive opioid treatment program, there are better outcomes in the following areas:

- Increased retention in treatment
- Decreased illicit opiate use
- Decreased injection drug use
- Decreased hepatitis and HIV infections
- Decreased sexually transmitted infections and other infectious diseases
- Improved family stability
- Lower death rates and a decrease in the incidence of overdose
- Decreased criminal activity

- Increased employment
- Improved birth outcomes for the children of women treated during pregnancy (CDC, 2002)

MAT has significant advantages to offer corrections. It is more cost effective than many other forms of treatment and it works to increase public safety and public health (NIATx, 2010).

Approach:

Each training tool in this series is centered on five basic principles to foster professional development, collaboration and safe, effective programming.

These principles include:

- **Evidence-based-** practices for medication assisted treatment that have demonstrated effectiveness with offenders. Objective analysis of research and results drive decisions to adopt new practices. If the data show medications can support recovery and contribute to public safety, personal opinions and assumptions are set aside.
- **Integrated interventions-** medications help manage many health problems such as diabetes, cigarette smoking, or high cholesterol, but medications without lifestyle changes are seldom enough for most health conditions. Cognitive behavioral approaches, attending to motivation, and emphasizing pro-social values and personal responsibility, can help facilitate those changes.
- **Recovery oriented-** recovery from addictive disorders is possible. Medication assisted treatment has helped many offenders let go of criminal lifestyles and begin to recover. Recovery is a process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential.
- **Present day accountability-** addiction histories may be part of offenders' past, MAT can empower them to assert greater control over their behavior today. This affords them an opportunity to build a life in recovery and entitles them to be judged by their actions rather than their past.
- **Culturally Aligned-** security concerns are balanced with therapeutic practices. Security issues that may arise with MAT such as contraband, diversion and

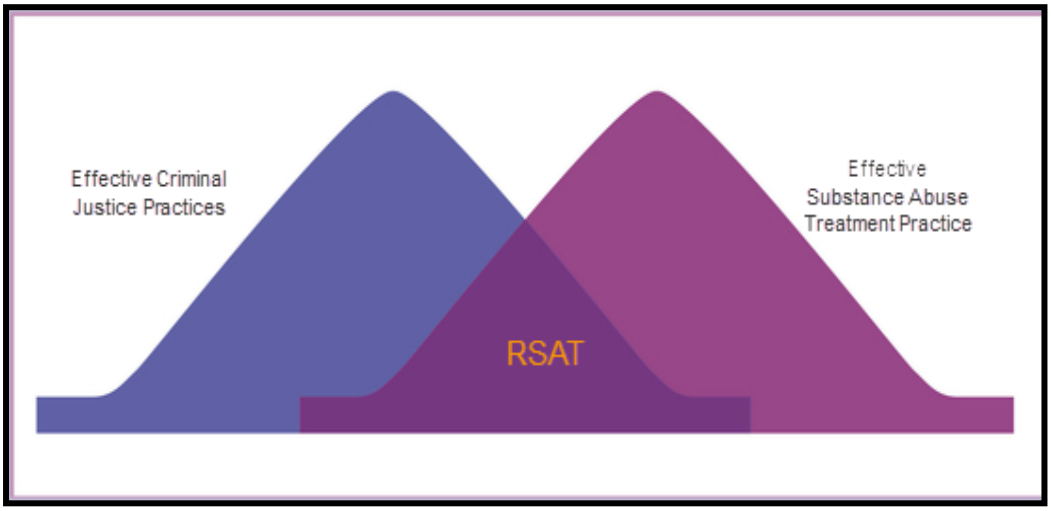
misuse, deserve attention. MAT has also reduced contraband and related problems in many facilities. The treatment and re-entry needs of diverse offenders, stigma, and disparities in access to care are always considerations.

- **Strength-based-** recognition that while active addiction can contribute to anti-social and criminal behavior, active recovery can transform weaknesses into strengths. Recognition of the value of aftercare, peer support and recovery community involvement prompts RSAT programs to strengthen their connections with the provider community and with recovery-oriented groups.

Note: This manual is for informational purposes only. The information provided is not intended to diagnose, treat, cure or prevent any disease or condition, including opioid addiction, nor is it intended to substitute for clinical or medical judgment. Decisions about treatment of opioid addiction and the use of medication are the sole responsibility of the client, treatment providers and the prescribing physician. Not all the options presented may be appropriate for every situation.

Relevance to Correctional Environments

Both the corrections field and the behavioral health field have identified evidence-based practices based on research and evaluation data. Although each system has different goals and outcome measures, there are many areas of overlap.



Most in-prison rehabilitation programming has two primary goals: (a) to reduce disruptive behavior within the institution; and (b) to reduce the risk of recidivism once offenders are released to the community. Prisons, jails, and community corrections implement a variety of practices aimed at reducing criminal behavior and recidivism. It

is useful for staff of RSAT programs to understand how prisons and jails maintain order and safety in facilities, control contraband, and monitor offender behavior.

It is also helpful for RSAT staff to identify the evidence-based alcohol and drug treatment practices that have been the most successful with offenders and have the greatest long-term impact on recidivism. When programming consists mostly of practices and approaches that have been effective for both fields, the client is more likely to benefit. **MAT is one of those practices.**

However, most correctional settings have not embraced the use of medications to support drug and alcohol treatment for both practical and philosophical reasons. Issues of contraband detection, security challenges associated with MAT in facilities, and a preference for a cold turkey approach to detoxification and abstinence have been identified as the main reasons (Kinlock, Gordon, Schwartz & Fitzgerald, 2010). More recently, the introduction of buprenorphine, a newer medication used in opiate replacement therapy (ORT), has proven problematic in some facilities.

There are only two medications approved for opiate replacement therapy (ORT) in the United States, Buprenorphine and Methadone. They are both controlled substances and, as such, have the potential for abuse, although methadone has the higher abuse potential. Until recently, urine screenings in many jurisdictions did not test for buprenorphine. As a result, Buprenorphine, in its mostly commonly prescribed form, Suboxone, went undetected in some facilities and contraband became a problem. A 2011 New York Times article recounted reports from several states systems indicating Suboxone was their number one contraband issue (May, 27).

Suboxone is available by prescription as a film or pill that dissolves under the tongue, making it necessary for staff to observe offenders taking suboxone to make certain it is fully dissolved. The film is more easily concealed under postage stamps and in cards and envelops.

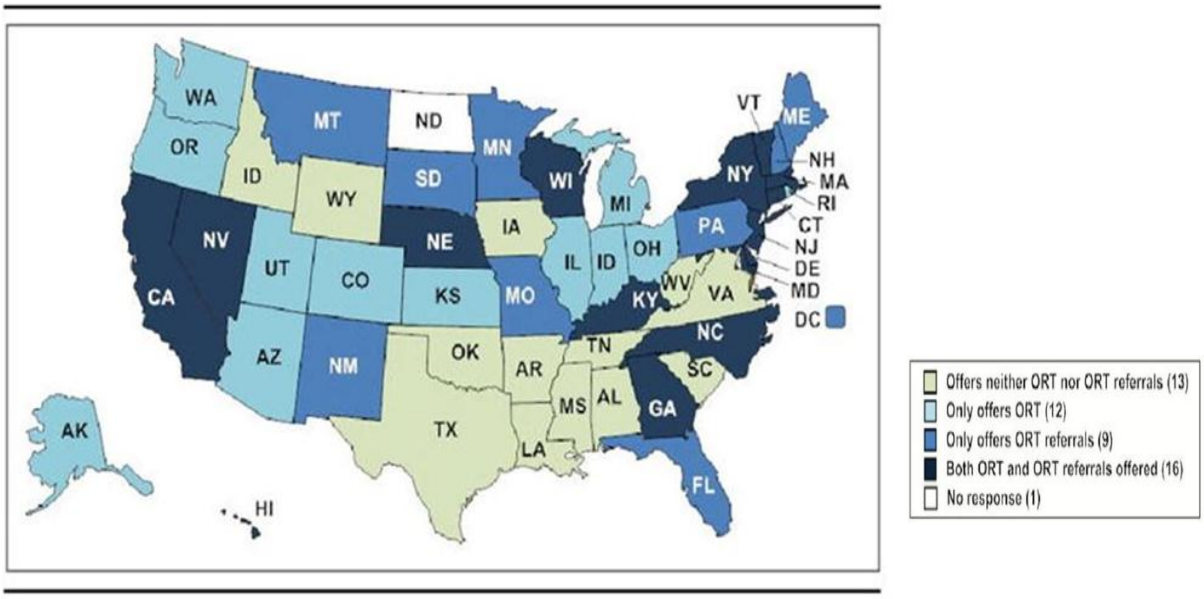
The concerns expressed by jail and prison officials charged with security are real. Unless carefully administered, the potential reductions in recidivism from MAT may be realized at the expense of increased disruptive institutional behavior, including diversion of prescribed medications (Gordon, Kinlock & Miller, 2011). However, it should be noted that when actual MAT programs are implemented, many facilities report **reduced** contraband (United Nations, 2008).

Facts about MAT and opioid addiction in jails and prisons

- One out of eight jail inmates report regular heroin or other opioid use.

- In state prisons, rates of opioid dependency range from as low as 8% to as high as 27% in urban areas (Legal Action Center, 2011).
- The National Survey on Drug Use and Health indicated that about 30% of probationers were illicit drug users, many of them involved with opioids (SAMHSA, 2011).

Until recently, despite the large numbers of offenders with opioid addiction in jails and prisons, very few were referred to MAT upon release. In 2003, only 8% of state prison systems were referring re-entering offenders to methadone maintenance programs upon release. However, as illustrated by the map below, the proportion of state systems that offer ***opioid replacement therapy*** (ORT) has increased significantly in the last few years to a little over half (Nunn et al., 2009).



Source: Nunn A, Zaller N, Dickman S, Trimbur C, Nijhawan A, Rich JD. Drug Alcohol Depend. 2009 Nov 1;105(1-2):83-8.

Surveys of correctional facilities indicate 12% of jails and 33% of prisons actually dispense methadone, mainly to pregnant women. In addition, seven states report dispensing buprenorphine (Fiscella, Moore, Engerman & Meldrum, 2004; Rich et al., 2005).

Although MAT is not a cure-all, and is certainly not indicated for every inmate who uses opioids or alcohol, it remains greatly underutilized by correctional treatment programs in general (Nunn et al., 2009) and RSAT programs, specifically. A systematic review of studies of ORT programs for prisoners noted that they consistently produce positive public health outcomes, with 55%-75% reductions in IV drug use, decreases in HIV

infection and in the spread of hepatitis C, and increased retention in community-based treatment after release (Larney & Dolan, 2009).

Since 1987, one such program has operated in New York City's Riker's Island correctional facility. The facility's KEEP program provides methadone maintenance therapy, pre-release, and dedicated post-release treatment slots for offenders. Evaluation data from the program show that 76% of offenders who were discharged attended the community–based treatment to which they were referred, demonstrating it is possible to sustain MAT programs in correctional environments (McLemore et al., 2010).

Riker's Island is now also piloting Vivitrol, the injectable, long acting form of naltrexone for MAT. The jail was recently the site of a clinical trial comparing treatment with methadone to buprenorphine (see text box). One of the advantages of buprenorphine was thought to be its lower abuse potential; however, the clinical trial in the jail found the opposite, with the diversion of buprenorphine more likely (Magura et al., 2009). Programs that make sure sublingual doses of buprenorphine are fully dissolved have been able to curtail this problem.

MAT Research with Criminal Justice Populations: Challenges of Implementation

"A randomized clinical trial comparing buprenorphine and methadone among male, heroin-dependent newly-admitted jail inmates in New York City found that while treatment completion rates in jail were similar, members of the buprenorphine group were significantly more likely to enter community-based treatment than members of the methadone group (Magura et al., 2009). However, buprenorphine patients were significantly more likely than methadone patients to be terminated from treatment in prison for attempted diversion of medication."

MAT programs for offenders are being piloted in other states, including Rhode Island, Pennsylvania, Maryland, Connecticut, New Mexico, Massachusetts, Florida, and Puerto Rico (Pecoraro & Woody, 2011). Attitudes and beliefs that have impeded the utilization of MAT in corrections are changing.

Three factors may hasten these changes:

- **Increasing Use of MAT in the Community**: More people who are already receiving MAT from community-based providers are entering jails. The Federal Drug Treatment Act of 2000 made it possible for private, trained physicians to prescribe buprenorphine to treat opioid addiction. This allows MAT as an option for those who do not want methadone treatment, or have no access to methadone programs. As a result, jails may find they increasingly have to interrupt community-based MAT when offenders enter their facilities.

- **Law Suits:** Legal challenges to the constitutionality of depriving offenders of a medically prescribed treatment have been filed. The Legal Action Center recently released a report on the constitutionality of denying MAT in prisons and jails. Among other things, it referenced a California case, in 2000, of a drug court participant who died of a heroin overdose after a judge ordered him to stop taking methadone. Subsequently, California passed a law prohibiting judges from banning ORT (LAC, 2011).

- **Introduction of Vivitrol**: Finally, the newest MAT option for opioid addiction may prove more acceptable to corrections. Vivitrol, the long acting injectable form of naltrexone, approved by the FDA in 2006 to support recovery from alcoholism, was approved in 2010 to also treat opioid addiction. Naltrexone is not a controlled substance and has no potential for abuse. It blocks the action of opioids, preventing euphoric and analgesic effects, and may cause sudden withdrawal symptoms when opioid drugs are used with it. This can act as a deterrent against relapse. An injection last 30 days, which may be helpful to re-entering offenders during initial high-risk, post-release periods (SAMHSA, 2012).

As of 2008, a total of 29 countries had implemented some kind of MAT in prisons, although mostly with limited availability (Larney & Dolan, 2000). Methadone is also an accepted best practice for treating pregnant women (ACOG, 2012) and historically has been widely considered the most effective treatment for opioid addiction (CSAT, 2005; 2009). It is also a cost effective treatment, potentially allowing corrections to treat more offenders. It results in more engagement in aftercare and community treatment among re-entering offenders (Bukten et al., 2012; Kinlock, Gordon, Schwartz, Fitzgerald & O'Grady, 2009). Regardless of the future of MAT inside correctional facilities, its use in community-based treatment is increasing. The availability of buprenorphine through private physicians along with FDA approval of Vivitrol, first for alcohol and now for opioids, has brought MAT options to many individuals who would not, or could not, access methadone treatment for opioid addiction. Acamprosate (brand name Campral), was approved by the FDA in 2004 for alcohol dependence. Along with Vivitrol, it is becoming more widely utilized to treat alcohol problems (Abraham, Knudsen & Roman, 2011).

Learning about MAT allows RSAT staff to be fully informed about treatment options in the community and prepares RSAT staff to provide the information and supports that offenders need to remain drug-free in the community.

Resources

Centers for Disease Control. (2002). *Fact sheet: Methadone maintenance treatment*. National Center for HIV, STD and TB Prevention. Retrieved from: www.cdc.gov/idu/facts/M ethadone.htm

Detoxification of Chemically Dependent Inmates, Federal Bureau of Prisons Clinical Practice Guidelines, August 2009: http://www.bop.gov/news/PDFs/detoxification.pdf

Drug treatment for offenders: Evidence-based criminal justice and treatment practices testimony: Subcommittee on Commerce, Justice, Science, and Related Agencies, Alan Mollohan (WV), Chair March 10, 2009, by: Faye S Taxman, Ph.D.

National Institute of Health. (2012). *Information page on Neonatal Abstinence Syndrome*. www.nlm.nih.gov/medlineplus/ency/article/007313.htm

NIATx . (2010). *Getting started with Medication-assisted Treatment with lessons from Advancing Recovery.* NIATx and the University of Wisconsin–Madison. Retrieved from: www.niatx.net/PDF/NIATx-MAT-Toolkit.pdf

WHO and UNODC (2008). *Opioid Substitution Treatment in Custodial Settings – A Practical Guide.* http://www.unodc.org/documents/balticstates/Library/PrisonSettings/OST_in_Custodial_Settings.pdf

Module II: Introduction to MAT-Opioids, Addiction and Recovery

A. Opioids and Addiction
B. Mental Disorders, Chronic Pain, HIV, and Pregnancy
C. MAT and Re-entry
D. Review and Resource

LEARNING OBJECTIVES:

After completing this module, participants will be able to:

- Explain the action of opioid drugs on the brain and body.
- Discuss the different medications used to treat opioid addiction and explain the difference between agonist and antagonist effects.
- List the phases of MAT for opioid addiction, its uses with various sub-groups of offenders and related re-entry considerations for RSAT clients.

Knowledge Assessment

Pre/Post-Test: True or False

1. When offenders receive medication-assisted treatment, the Cetners for Disease Control (CDC) reccomends they discontinue other therapeutic inteventions to get the full effect of the medication. F

2. Methadone is the reccomended course of treatment for pregnant women who use opioids. T

3. Offenders who are not actively using opioids at present should not be referred to MAT programs upon release. F

4. The medication-assisted, prison-based, programs that exist find offenders do not continue treatment after they are released. F

5. Prolonged opioid use interferes with the brain's natural mechanisms for controlling pain and regulating mood. T

6. Methadone is an opioid agonist that can help relieve chronic pain. T

7. If a woman decides to go on buprenorphine during her pregancy, it is best to file a motion with the court to order her to stop. F

8. Since 2004, the FDA has approved two new medications for the treatment of alcoholism and alcohol abuse. T

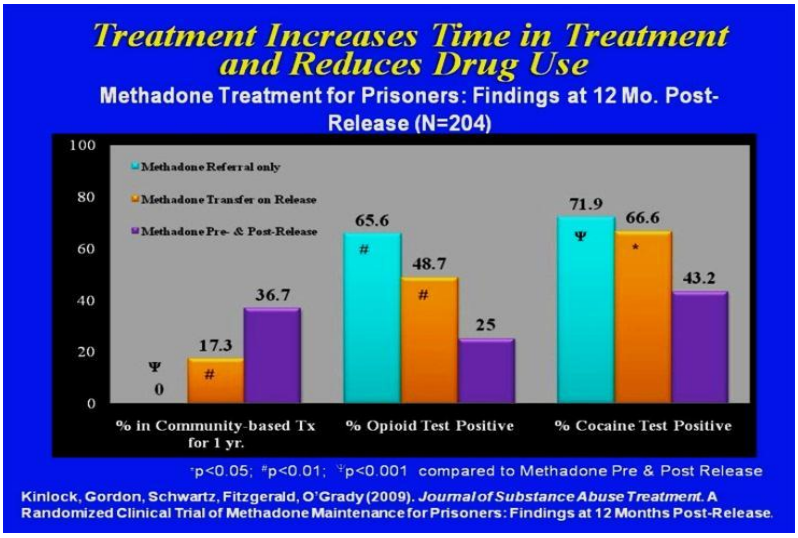
9. Naltrexone is a synthetic narcotic with a low potential for abuse. F

10. The first phase of MAT is called detoxification and is followed by stabilzation and induction. F

A. OPIOIDS AND ADDICTION

Why treat opioid addiction with MAT?

This module focuses on medication assisted treatment practices for opioid addiction and the three medications approved by the FDA for this purpose. More medications may become available in the future, but the only ones currently approved for MAT by the FDA are for treatment of opioid addiction or alcoholism and alcohol abuse. MAT for alcoholism will be covered in a subsequent module. Two of the medications are used for opioid replacement therapy (ORT), which is a type of MAT that utilizes long action opioid compounds. The other medication is not a replacement, but rather an opioid blocker. RSAT programs should be able to refer re-entering offenders to community treatment programs where MAT for opioid addiction is an option. There is a great deal of research on the effectiveness of ***ORT*** in reducing criminal behavior, decreasing recidivism, reducing institutional disciplinary infractions, and controlling contraband. ORT has also been found to result in fewer fatalities from drug overdoses and relapses (Gibson, Degenhardt, Mattick, White & O'Brien, 2012) and reductions in the spread of infectious diseases, including HIV and hepatitis C, as well as other negative health consequences (Gibson et al., 2012). For these reasons, the National Institutes of Health, the World Health Organization, and the National Commission on Correctional Healthcare have all recommended that opioid-dependent persons under legal supervision have access to methadone maintenance therapy (NIH, 1997). They have recently been joined by the Office of National Drug Control Policy and the United Nations.



Opioids and Opiates: Use, Misuse, Abuse, and Dependency

All Opioids, whether legal or illegal, synthetic or natural, have certain unique effects on the brain and body. Opioids relieve pain and give people a sense of well-being or euphoria by **changing the body and brain chemistry.** These drugs are extremely effective medications, for this reason. Today, it is difficult to imagine what it was like before narcotics were available for medical use and the human suffering they alleviate

for the sick, the injured, and the dying. But, the very mechanisms that make them effective also produce neurological alterations and physiological adaptations that make them extremely difficult to give up.

The term *opiate* applies to drugs that are derived from the opium poppy such as morphine and codeine. The term *opioid* is now used for either the natural opiates, or synthetic and semi-synthetic compounds such as heroin, oxycodone, and fentanyl, which are designed to emulate the action of plant-based opiates.

Opioids are produced three ways:

- **Your body makes its own opioids** that kill pain and produce feelings of joy and well-being: sometimes called *endogenous opioids.* Endorphins, for example, can be released by acupuncture, resulting in pain relief.

- **They are derived from the plant-based alkaloids** obtained from the opium poppy, including codeine, morphine, and laudanum. These *opiates* emulate the effects and travel the same pathways as your own endorphins, but they are much more potent.

- **They are partially or completely synthesized** in a lab to produce the opioid response. Examples are heroin, oxycodone, and fentanyl. The synthetic and semi-synthetic *opioids* are formulated to more efficiently trigger specific brain chemical processes and result in their alteration.

There is nothing “natural” about the action of opiates that are derived from plant-based alkaloids. Both the plant-based and the synthetic versions bombard the brain and body with powerful chemicals that dramatically alter primitive brain functions responsible for our natural reactions to pain and pleasure. Once this occurs on a regular basis, lasting changes result (Volkow, 2004). The first change most users notice is tolerance, or the need to take increasingly larger amounts of the drug to get the desired effects.

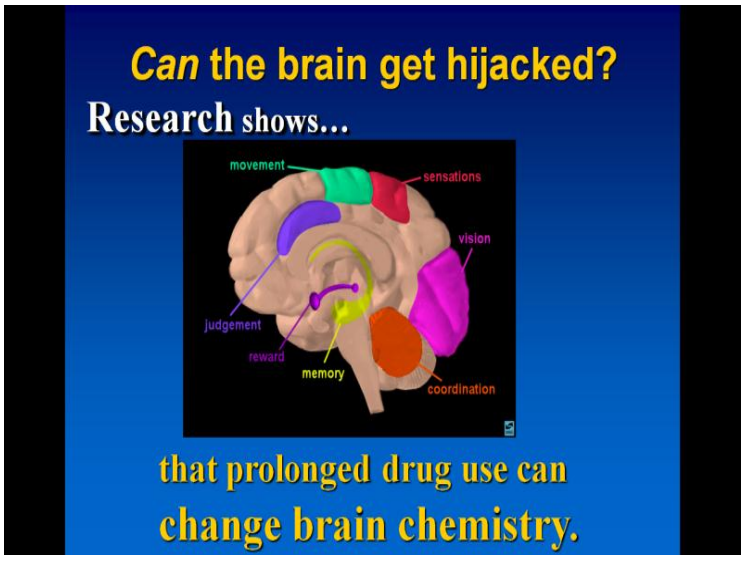
With continued use, the “factories” that produce, distribute and process our own internally produced opioids shut down and cease operations. The system begins to rely on the externally introduced substance in order to function at normal levels. Once this adaptation has taken place and a person is physically dependent. Physical dependence is caused by any consistent use of opioids over a perioid of as little as two weeks . This will occur even if the opioids are only taken regularly as prescribed by a physician for pain. If the opioid is abruptly discontinued, even in the case of a pain patient there is a reaction to not having the substance---withdrawal (NIH, 2010).

Withdrawal takes place whether the person has lots of will power or none. It doesn't matter if the person is using opioids for enjoyment, for escape, or to relieve physical or psychic pain.

In the case of addiction, dependence results in the physiological need for the drug to function, even at a normal level. Avoidance of withdrawal becomes a powerful motivator to keep using, in spite of a desire to stop. When people need the drug to function normally, they are no longer using it to feel good, but rather to feel normal, avoid withdrawal symptoms, and to stop feeling sick. Their enjoyment or pleasure from using diminishes or disappears; they are on the treadmill of using to survive. Most people find they cannot simply walk away from opioid addiction, no matter how much they are motivated to change their life (CSAT, 2005). Although they may get through the relatively short period of acute withdrawal and successfully overcome the body's demand for opioids, returning the brain to stable functioning is far more difficult and perhaps, in some cases, impossible (Dennis & Scott, 2008).

This is your brain on opioids

Recovery from addiction is certainly possible without medications. However, for some users, recovery involves a continuous battle against cravings that result from the brain's adaptations to substance abuse. Medications are used to help restore brain to more normal functioning, thereby reducing craving. At the same time, experts agree that medications alone are seldom enough for long-term success (White, 2011). As with most other chronic health conditions that are treated with medications, lifestyle changes are also necessary.



It is widely accepted that one of the hallmarks of addiction is altered neurological processing involving specific regions, receptors and endogenous chemicals. Certain triggers, or cues, stimulate these urges and cravings in ways that are not fully understood (WHO, 2004). However, new research shows that addiction seems to reorganize processes that are closely connected to survival, such as "incentive-motivation and reward," and such changes "make these regions of the brain hypersensitive (sensitized) …. Adaptations following chronic drug exposure extend well

beyond reward circuits to other brain areas, notably those involved in learning and stress responses" (WHO, 2004, p. 81).

The rewarding effects of opioids and the effects of withdrawal seem to be linked to powerful survival instincts and to potent memories that trigger the autonomic nervous system, stimulating the release of hormones that cause extreme stress responses, while inhibiting other endorphin responses that help the system cope with the effects of extreme stress (Chandler, Fletcher & Volkow, 2009).

One practical lesson that experience and research has shown, short-term MAT for withdrawal from opioids rarely results in sustained abstinence. Detoxification is quick and technically easy, but preventing relapse is extremely difficult (Dennis & Foss, 2008) due to this impairment of the brain's ability to regulate stress, pain, and mood combined with deeply conditioned responses and memories that translate into intense craving. Long-term positive outcomes require longer periods of treatment, 12 months or more.

Agonists

Medications like methadone and buprenorphine are long-acting opioids. They replace the drug of abuse and help satisfy the areas of the brain that are occupied by drugs of abuse, control withdrawal symptoms, and reduce cravings. The person taking a prescribed dose of medication should feel normal, able to continue to work, and to perform tasks like driving. Partial agonists have similar, but more moderate effects. Some medications combine the agonist and antagonist actions.

Antagonists

Medications like naltrexone block the action of opioids. The antagonist action of naltrexone on the brain can block the reinforcing and pain killing effects of opioids and may interact with any opioids that are in the system to cause withdrawal symptoms. This can help some people avoid relapse. Some people who use this type of medication report reduced cravings, but others do not. Naloxone is a

Exercise 1: We also know that not everyone becomes addicted. Even some people who become physically dependent on narcotic pain medications as a result of a surgery or injury successfully discontinue their use with minor difficulty; while others will go on to rob pharmacies in their desperation to continue to use these drugs. What factors account for the different responses?

Directions: *Look over the list of items below.*

Put a check ✓ in the box if you think the item has been shown to pre-dispose people to addiction. Put an X in the box if you think it has little or no effect.

- ☐ **Heredity/Genetics**
- ☐ **Environment**
- ☐ **Willpower**
- ☐ **Modeling**
- ☐ **Access**
- ☐ **Age of first use**
- ☐ **Education level**
- ☐ **Chronic pain**
- ☐ **Mental illness**
- ☐ **Illegal or legal substance**
- ☐ **Strength of character**
- ☐ **Childhood trauma**
- ☐ **Intelligence**
- ☐ **Early cigarette smoking**

(Answers on page 25)

Genetics: Susceptibility to addiction is influenced by many factors, including genetics. Researchers assign 40%-60 % of the responsibility for a predisposition to drug and alcohol problems to genetics (Uhl & Grow, 2004). Scientist can now identify a host of specific inherited indicators that point to addiction or alcoholism and markers that influence the way substances are metabolized. Geneticists have even found a marker associated with the need for higher doses of methadone and a gene variant that predicts a good response to naltrexone in alcoholics (Dick & Agrawal, 2008). These hereditary makers increase susceptibility, especially when combined with environmental, psychosocial and economic risk factors.

Drug access and drug delivery: In addition to genetics, factors related to the type of opioid used and the route of administration can have an influence For example, chemically engineered pharmaceuticals are designed to target brain responses more efficiently than opiates from natural sources, with nasal or IV ingestion as the most direct delivery routes (Chandler, Fletcher & Volkow, 2009). Co-occurring mental health problems and chronic pain also increase the likelihood one may seek relief from

psychic or physical pain through drugs and also the likelihood of having access to prescription drugs.

Age at first use: Developmental factors also determine who becomes addicted to drugs or to alcohol. Age at first use is a strong determinate. About 90% of those who develop chronic substance use disorders with severe behavioral problems began using drugs under age 18 (Dennis et al., 2004). Almost all adult pathological drinkers (96.8%) began drinking before age 21 (Grant & Dawson, 1997). Those who initiate alcohol use prior to age 15 are four times more likely to become alcohol dependent than those who start regular drinking at age 21 or older. Apparently, the alterations that take place as a result of addiction affect younger brains more profoundly.

Childhood trauma & family stressors: A factor that may be closely related to early initiation of substance use is early childhood trauma (NIDA, 1998). Multiple studies have documented high rates of early exposure to abuse, violence, and multiple family stressors among drug addicted individuals. Up to two thirds of clients in substance treatment report early childhood abuse (Clark, 2001).

A landmark study conducted by the Centers for Disease Control and Kaiser Permanente (an HMO) looked at those who reported several different types of abuse and family stressors as children. Their risk of becoming IV drug users was multiplied many times when compared with those who reported no abuse and had fewer family stressors (Feletti, 2007).

It was, at one time, widely assumed that individuals who become alcoholics shared "an alcoholic personality," described as anything from "passive-dependent, egocentric, latently homosexual, sociopathic," to "intolerant of psychic tension, lacking self-esteem and frightened of intimacy" (Vaillant,1983, p. 74). However, longitudinal research has found no evidence that premorbid personality characteristics are associated with subsequent alcohol dependency or alcoholism, nor is addiction or alcoholism successfully treated by psycho-therapy aimed at correcting such characteristics (Vaillant,1983).

B. Mental Health, Chronic Pain, HIV and Pregnancy

MAT for special populations

While opioids tend to create ***euphoria*** and provide ***relief from pain***, people recovering from their effects tend to experience "***dysphoria"*** and develop a ***hyper sensitively to pain*** (opioid-induced hyper-analgesia). Many recovering people point to these ongoing states of physical and psychological distress as the reason they chose to try MAT or return to MAT (CSAT, 2011).

Researchers have found that prolonged opioid use results in a functional endorphin deficiency that does not self-correct (WHO, 2004). Many people in long-term recovery from opioid addiction speak of the prolonged psychological/emotional stress of opioid withdrawal, including unyielding depression and continual sensitivity to physical pain. However, for many people addicted to opioids, chronic pain and or mental health disorders may have existed prior to initiating opioid use.

1) Pain

An estimated 29%-60% of people with opioid addiction deal with chronic pain (CSAT, 2012a).

Pain management is a real issue for a lot of clients, even if they have abused pain medications in the past. The use of pain medication for physical problems can be a direct route to dependency and addiction. A recent study of a large sample of patients in opioid treatment programs found that more than one-third reported their reason for seeking treatment was physical pain (AT Forum, 2011).

Some correctional facilities have added pain management programs, which have reduced prescription drug costs substantially. Opioid addicted individuals who have chronic pain may relapse frequently unless it is addressed by a specialist in pain management and addiction. The VA has such pain management programs for veterans. RSAT staff should make sure they have good referral sources for inmates with ongoing pain management needs as they re-enter the community (CSAT, 2012a).

2) Mental health disorders

Approximately 4% of adults in the U.S. have co-occurring disorders. It is estimated that up to 45% of offenders in prisons and jails have them.

Co-occurring disorders among offenders tend to be very common. Cook County Jail in Illinois, for example, found 45% of its inmates suffered from both mental and substance abuse disorders (GAINS, 2004). Studies outside the United States have found similar associations. An Australian 2004 study of 825 people in opiate

replacement therapy, mostly with criminal justice involvement, found 49% reported severe psychological distress, 28% had current major depression, 37% had attempted suicide, and 42% had a history of post-traumatic stress disorder (Ross et al., 2005). A study of 109 outpatients, treated mostly for heroin addiction, conducted in the European Union, found the rate of ADHD was 20%, and the rate of bipolar disorder was 43.2%, with a number meeting the criteria for both (Ceraudo et al.,2012).

Co-occurring mental health disorders are the expectation and not the exception, especially for women addicted to opioids (Glaze & James, 2006). Cross training with mental health staff and providers is desirable. The issue of drug interactions between medications prescribed for addiction and those prescribed for mental health is important for RSAT staff and for offenders to understand.

Implications for RSAT programs:

- Screening for mental health disorders should be ongoing for those in RSAT programs with a history of opioid addiction, and for those in MAT at all stages (CSAT, 2007).

- Medication interactions between MAT and Selective Serotonin Re-uptake Inhibitors (SSRIs) and Monoamine Oxidase Inhibitors (MAOs), certain anti-depressant medications, as well as other psychiatric medications are not unusual. Sometimes dosage adjustments of one or both medications are necessary (Saber-Tehrani, Bruce & Altice, 2011).

- Collaboration with mental health staff within facilities is important, but also with community mental health centers as inmates are released (Hills, Siegfried & Icowitz, 2004).

3) Pregnancy

The increasing number of pregnant women entering prisons, jails and some RSAT programs present special challenges.

Inmate pregnancies are high-risk RSAT programs that serve women find they require careful management and collaboration with pre-natal care providers.

Frequently, pregnant women offenders who were using opioids before being incarcerated do not have the social support they need. They may have even been judged harshly and subjected to discrimination and harassment in drug treatment programs where males are predominant (Pursley-Crotteau, 2001).

Many of these mothers are young. They may be too embarrassed, afraid, or ashamed to get help. As a result, they may try to stop using on their own and relapse repeatedly. This cycle can be very dangerous for the developing fetus and can result in miscarriage, early birth, and other dangerous complications (CSAT, 2009).

Women who become pregnant while using opioids face a difficult dilemma. For many the first thought is to quit immediately. This may be a good instinct. Studies find that women who continue to use during pregnancy have more early births, deliver babies with lower birth weights, and experience more problems during labor and delivery (Kaltenbach, Berghella & Finnegan, 1998). However, it is risky to go off opioids too quickly during pregnancy. When a pregnant woman uses opioids, they pass into the baby's bloodstream. If the mother quits cold turkey, the baby begins to experience withdrawal symptoms, which lead to dangerous complications.

For this reason, most correctional facilities that house women offenders provide them with methadone during pregnancy. MAT is often terminated very soon after delivery. However, women are at very high-risk for relapse after delivery and need follow-up care (Unger, Metz & Fischer, 2012). Pregnant women can best consider their options by discussing them with a doctor experienced in addiction treatment during pregnancy:

- Methadone is the safest, most widely researched, and recommended course of treatment. There is no known permanent harm to babies born to mothers treated with methadone. It controls withdrawal symptoms and helps stabilized heart rate, blood pressure and other maternal and fetal functions. Pregnant women treated with methadone are three times more likely to remain in treatment (CSAT, 2009).

- Shortly after birth, most babies have some signs of withdrawal symptoms, such as fussiness or shaking. This is called neonatal abstinence syndrome (NAS). Symptoms can be mild, requiring no special treatment; but at least half of the time NAS symptoms are more intense, requiring medication and delaying hospital discharge (NIH, 2012).

- There are promising studies on buprenorphine and pregnancy that suggest NAS is milder for babies born to women treated with buprenorphine instead of methadone (Jones et al., 2010). Subutex, the medication that contains only buprenorphine, is considered safe for pregnancy and is used in many European countries (NIDA, 2010). Suboxone, contains naloxone, which, along with naltrexone (Vivitrol, Revia), is not recommended for pregnant women (ACOG, 2012).

- Some women feel strongly that they should not take drugs during pregnancy or that recovery means no medications. If they plan to withdraw from opioids, it is important to find a doctor or program experienced in supervising safe withdrawal for pregnant women and making recommendations that are best for the mother and baby (CSAT,2009).

Treatment planning for pregnant inmates in, RSAT programs should consider the special challenges of this population. Drug and alcohol use during pregnancy is associated with having relatives that used substances during their pregnancies, a high risk of undetected fetal alcohol effects (in the mother) and a history of physical, sexual and emotional abuse and trauma, which can also be predictive of how well they adjust to MAT (Bransetter, Bower, Kamien & Amass, 2008; Gil-Rivas, Florentine & Anglin, 1996).

MAT and Reducing the spread of HIV/AIDS and Hepatitis C

For many offenders with substance use disorders, entry into a correctional facility may be their first contact with treatment, their first chance at medical care in a long time and the first time they have been offered HIV testing. As testing in jails, prisons, and substance treatment settings becomes more available, many inmates with HIV will learn about their status in these settings (Ullman et al, 2010).

Research also shows that incarceration can be a prime opportunity to detect, prevent and treat HIV, hepatitis C, and related conditions. Prevention education and risk reduction counseling are essential in RSAT programs. (CSAT, 2000; Tran et al., 2012).

Studies show that methadone and other opioid replacement therapies have reduced HIV and hepatitis C infection rates and improved adherence to anti-retroviral medication treatment significantly among re-entering offenders (Springer, Chen, Altice, 2010; Ullman et al., 2010). Dosages of opioid replacement medications may need to be adjusted or increased while undergoing treatment for HIV with certain drug combinations.

Answers to Exercise 1, page 19

The following are not associated with a higher or lower risk of addiction: Intelligence; Illegal or legal substance; Education level; Strength of character; Willpower

Guidelines and suggestions for RSAT programs

RSAT programs operate in accordance with the correctional facilities and jurisdictions they serve. RSAT staff cannot begin offering MAT just because it is an evidence-based practice. **However, there are concrete ways RSAT programs can benefit from knowledge of MAT if such programs are unavailable in their facilities.**

- **Offer inmate education.** This is a part of most treatment programs and frequently offered to offenders that do not meet the criteria for intensive treatment. MAT education allows those with alcohol and opioid problems to understand what is currently available. It is also an opportunity to address some of the misinformation that contributes to stigma and discourages treatment. An example of an inmate education slide presentation developed by the Barnstable

County, Massachusetts Sheriff's Office for its RSAT inmates is contained in the Appendix A.

- **Hold staff and volunteer training on MAT**. This puts everyone on the same page. Not everyone has to embrace MAT; however, with good information, people can usually understand that they are not really qualified to disparage it for others who may find it essential for recovery.

- **Support choices and decisions that offenders make**. This involves supporting those who want to give MAT a try and those who do not. No one treatment has the answer for everyone. MAT may even be contra-indicated in some cases. It also may work when other attempts at treatment have failed repeatedly.

- **Encourage use of resources in the community;** RSAT staff does not have to bear the burden alone. There is a MAT authority in each state that can help set up referral networks. There are web-based resources for clients, decision aids, fact sheets, and MAT treatment locators. There are patient education materials available at no charge from every state's substance abuse agency Visit the resources pages at the end of this section.

- **Offer hope for difficult cases;** offenders who are motivated to stop using but haven't been able to can become very discouraged. Some research suggests those with a high degree of craving have a stronger physiological response to addiction and may respond well to medications even though they have not responded to other treatments (NIAAA, 2005, Dennis, Foss & Scott, 2007). Referral to a MAT provider is an option that can renew hope and motivation in these cases.

- **Call on referral networks.** They can take an active part in educating inmates, and in training staff in pre-release screening and patient placement. By 2014, in most states, national health reform will mean many offenders (especially young single males) may become eligible for Medicaid coverage or health insurance at reduced costs. Advocates at the state and national level are working to ensure MAT is a covered health benefit. Establishing networks with healthcare partners willing to assist re-entering RSAT clients with pre-release benefit enrollment and assessment can help those considering MAT post-release.

- **Consider cost effectiveness**: MAT allows for offenders to access outpatient services while they continue to take care of work or family responsibilities.

Reduced health care costs have been documented for people on methadone The cost of treatment is also contained by MAT (McCarty et al., 2010).

Exercise 2: MAT myth or fact 

Now that you are on your way to becoming a MAT expert, you can help separate myth from fact!

Directions: *For each of the item below, decide if it represents a fact or a myth about MAT and mark the corresponding circle.*

a. **If an inmate has not used opioids during a prison or jail stay, they do not need MAT and should not be referred to a MAT provider upon re-entry.**

❍ Myth	❍ Fact?

b. **Alcohol and drug addiction are major drivers of recidivism that affect up to 70% of offenders; 50% of offenders with substance abuse problems will relapse within one month of release.**

❍ Myth	❍ Fact?

c. **Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) do not support the use of medications.**

❍ Myth	❍ Fact?

d. **Medications are drugs, and you cannot be "clean" if you are taking any kind of drug.**

❍ Myth	❍ Fact?

e. **If a client is dealing with mental illness as well as drug addiction or alcoholism, MAT should still be considered.**

❍ Myth	❍ Fact?

f. **Entering a MAT program upon release will expose RSAT clients to criminal associates and compromise their ability to stay out of trouble in the community.**

❍ ❍
Myth or Fact?

(See page 33 for answers)

MAT and Re-entry

Supporting Choice of Treatment: What can RSAT clients expect if they choose MAT in the community?

The increases in prescription drug use, diversion of pharmacuetical opioid pain medications, and the increased availibility of MAT through private doctors has changed the demographic of clients seeking treatment in the community. New data suggest offenders referred to an opioid treatment program (OTP) upon release are almost as likely to be treated with someone who is trying to overcome addiction to perscription opioids as someone trying to kick a herion habit. A survey of 42,000 patients in various MAT programs found 45% of clients reported pescription medications as their primary drug of abuse (AT Forum, 2011).

Criminal or drug using associates during re-entry are always a concern when offenders attend programs in the communty, but the demographic data suggest the treatment population is not the same as a decade ago. Plus, MAT is now availible to individuals through primary care physicians.

MAT for parolees and probationers has been associated with the following positive effects:

- Increased retention and engagement in treatment
- Fewer difficulties for parole and probation officers
- Decreases in:

    recurrent drug use
    violations and arrests
    HIV and hepatitis C infection
    behavior problems
    crime (Pendergast, 2009)

Vivitrol: A new opportunity for MAT to support re-entry

Naltrexone taken orally in pill form has been used to treat alcoholism and opioid addiction for several years, but it had limited use until 2006, when Vivitrol, the long-acting injectable form, was approved for the treatment of alcoholism (CSAT, 2012b). Prior to that time, if patients wanted to drink or take herion, they simply stopped taking the pills. Medication compliance is far less of an issue with Vivitrol injections, which last 30 days (Minozzi, 2011). Vivitrol injections were approved for treating opioid addiction in the U.S. in 2010.

Vivitrol has shown significant benefits in studies with alcohol dependent patients (O'Malley & O'Connor, 2011). Outcomes for opioid addiction from completed studies suggest that Vivitrol as maintenance therapy may preform better than placebo for certain indications (Krupitsky et al, 2011). Risk of reimprisonment decreased with Vivitrol in two studies of parolees or people on probation; risk of re-arrest decreased in one preliminary study on drug court partcipants. Some studies have shown subjects remain in treatment longer with Vivitrol (Coviello et al., 2012; Finnigan et al., 2011).

Clincal trials for both alcoholism and opioid addiction are gathering information about treatment with Vivitrol on a variety of research subjects, including re-entering offenders. Research subjects are being recruited from pre-release inmates in Rhode Island, re-entering HIV positive inmates in Connecticutt, parolees in Pennsylvania, and inmates from four Maryland correctional facitlies. Most of these studies will give volunteers who meet the criteria one Vivitrol injection, pre-release, and six injections post-release. They will be tracked for seven months to determine incidence of re-arrest, re-incarceration, opioid use, overdose, and various HIV related outcomes. One study of Vivitrol for alcoholism is recruiting people convicted of drinking while driving in Ontario, Canada (National Institutes of Health, 2012).

However, despite its relatively recent introduction for MAT, the Substance Abuse and Mental Health Services Administration (SAMSHA) notes some benefits in its latest advisory (available from: http://store.samhsa.gov/shin/content/SMA12-4682/SMA12-4682.pdf).

An Introduction to Extended-Release Injectable Naltrexone for the Treatment of People with Opioid Dependence:

"Extended-release injectable naltrexone benefits people with opioid dependence who are at risk for opioid use immediately after detoxification (citing Sullivan, 2011)." Further, SAMSHA advises "(p)eople facing periods of greatly increased stress or other relapse risks (e.g., visiting places of previous drug use, loss of spouse, loss of job) may find they benefit from the reassurance of the blockade provided by the medication (citing Gastfriend, 2011 Bisaga, 2011). People who have a short or less severe history

of dependence may also want to consider injectable naltrexone (citing Sullivan, 2011)." The SAMHSA advisory cautions, however, "No definitive research is available that states which patients would most benefit from extended-release injectable naltrexone….The efficacy of extended-release naltrexone has been established when given in conjunction with behavioral support; it has not been studied as a sole component of treatment" (pp, 4-5).

SAMHSA lists the following as "good candidates" for extended-release injectable naltrexone:

- People who have not had treatment success with methadone or buprenorphine
- People who have a high-level of motivation for abstinence
- People successful on agonists who wish to change their medication or patients not interested in agonist therapy to treat their opioid dependence
- Adolescents or young adults with opioid dependence

At least one RSAT program in Massachusetts is providing Vivitrol for opioid abusing and/or alcoholic inmates immediately before they are released to the community. The inmates must also agree to enroll in a community-based aftercare program that provides counseling as well as continued MAT. The inmates are examined by a physician to make sure there is no medical reason not to take the medication. They are then administered a small dose of oral naltrexone to make sure there are no adverse effects.

Although less than a year old, the RSAT program reports that the participants appear to be doing better than those released without the injection. The medication seems to be helping several long-term alcoholics who have been unable to stay sober and out of trouble for the last decade. In addition, the inmates treated reported a significant drop in cravings as a result of Vivitrol treatment. The program administers a cravings assessment 30 days prior to release and before any Vivitrol treatment, then administer the same assessment 6 days after Vivitrol treatment (the day before their release). The pre-and post- scores reflect a significant drop in cravings (personal communication: Jessica Gallagher, Asst. Dir. Health Services, Barnstable County Sheriff's Office, November 30, 2012).

Since Vivitrol blocks the effects of opioids it has some drawbacks over other MAT medications to consider:

- *No help with acute withdrawal symptoms:* A patient must be fully withdrawn from all opioids for at least 7-10 days before starting Vivitrol.

- *No help with post-acute withdrawal:* Many opioid addicted patients are not interested in Vivitrol, because, unlike methadone and buprenorphine, it does not relieve ongoing withdrawal symptoms and dysphoria.

- *It may increase the risk for overdose death if relapse does occur*: Users that relapse after treatment with Vivitrol no longer have a tolerance to opioids. Some patients may also try to over-ride the blocking effects by using large amounts of heroin or oxycodone that can lead to overdoses (SAMHSA, 2012).

On the other hand, since Vivitol is not a controlled substance, it may be particularly well-suited for use and acceptence within corrections. It has no potential for abuse, and diversion is not a concern, whereas diverted buprenorphine or methadone can command a high price on the contraband market in correctional facilties.

Starting MAT

Most community providers begin with an assessment of opioid and other drug use and a medical examination. Some providers may check state prescription drug monitoring programs for a list of controlled drugs the patient may have been receiving (Lembke, 2012). Then, they will talk with the patient about treatment options and work together to develop a treatment plan.

There are four stages of MAT. These stages may vary depending on individual preferences, use history, time committed to treatment, and level of motivation:

1. ***Induction*** is the starting phase. Assessment helps the treatment team determine a good starting dose. The doctor should make sure clients are adjusting to medication safely by starting with a low dose and increasing it slowly. **The risk of overdose, especially for methadone, is highest during this stage, making it very important for RSAT staff to refer to providers who are vigilant and <u>individualize starting dosages</u> for re-entering clients.** Side effects may be pronounced at this stage of treatment. A provider should administer the first dose, have the patient remain for observation, and caution them about tasks like driving. If after 2-3 hours withdrawal symptoms persist, another small dose may be administered.

2. ***Stabilization*** begins when the client is on the right dose and the body and brain have adjusted to the new medication. There will be fewer highs and lows and withdrawal and craving will be under control. If the dosage is correct, the client will not continue to feel drowsy or sedated, will be able to drive, etc. and will not experience withdrawal symptoms. Dosages that are too low are associated with relapse and program attrition when patients reach maintenance.

3. ***Maintenance*** is the long-term phase of treatment. It can free people from addictive use, craving, and anxiety for a sustained period while they build a life in recovery. People may remain on maintenance for a number of months or years. They can periodically be reassessed for continuation or may begin a program of medically managed withdrawal. No additional risks are associated with long-term methadone or buprenorphine treatment (or naltrexone).

4. ***Tapering*** is medically managed withdrawal through gradually reduced doses over a period of months. This helps lessen withdrawal symptoms from methadone, which tend to be less severe than the initial withdrawal from opioids, but more protracted. Withdrawal from buprenorphine can also be managed through tapering and is reported to be less severe than withdrawal from methadone. There is no withdrawal with naltrexone, and it does not require tapering.

Preparing re-entering offenders for first appointments

Below are some tips to help prepare offenders that may be referred to MAT providers in the community. As programs and facilities set up referral networks, it is helpful to enlist the state agency in charge of substance abuse services. Each state agency has a person responsible for supervising MAT programs. A link to a listing by state is included in the resources at the end of this module. The state office can help identify the highest quality providers and the ones that work effectively with criminal justice populations.

For their first appointment:

- Have them make a list of all current prescribed medications.
- Have them gather all medical tests, documentation, and records prior to release.
- Make sure they understand they should give the doctor details of any substances they take so drug interactions can be avoided.
- Prepare them for frequent drug screenings, urine samples are typical but sometimes an oral swab is used.
- If they are going to be treated with ORT, have them arrange a ride home from their first MAT appointments. It's best not to drive until the side effects of methadone or buprenorphine are stable.
- They will need a long-term plan for transportation if they are considering methadone.

- If they are considering Vivitrol, they should understand any opioids in their system when the injection is administered will cause a negative reaction, and that Vivitrol will block the effects of opioids for 30 days. They should know that it is used for both alcohol and opioid treatment.

- If not already signed up for Medicaid or private insurance where available (beginning in 2014), make sure they complete the necessary paperwork and get approved; determine whether or not the plan pays for the referred MAT.

A few facts and considerations related to re-entry and MAT:

RSAT staffs' roles include staying informed about MAT options and offering unbiased information to inmates, including facts on changes in tolerance, education on overdose prevention, information on women's programs, and connections to advocacy and support for people in medication assisted recovery.

- If a client discontinued MAT when they became incarcerated, but wants to resume upon release, a referral to a provider is appropriate, unless there are parole policies that prohibit it.

- Even if an RSAT graduate has been free of opioids for many months, he or she may still derive great benefit from a period of MAT in the community upon re-entry, and a referral is appropriate.

- People who choose medication assisted recovery are often stigmatized, sometimes even within sectors of the recovery community. It is important to connect re-entering offenders to recovery support and counseling, especially for those treated with buprenorphine by a private physician.

- Prolonged opioid use leads to physiological tolerance necessitating larger and more frequent doses to achieve an effect. **That tolerance is reversible** after a period of abstinence; a dosage that was tolerated months earlier can be fatal. Tolerance is also a consideration during the induction phase of MAT.

- An offender's risk of death in the first two weeks following release from prison is estimated to be 12.7 and 40 times that of the general population; 90% of those deaths are due to drug overdose (Bingswanger et al., 2007; Stover & Michels, 2010).

- Recent research found that 53% of opioid dependent ex-offenders studied had overdosed at least once; 80% had witnessed an overdose; 28% witnessed a fatal overdose; and 72% knew someone who had died from an overdose (Wakeman et al., 2009).

Note: Although Narcan (naloxone) is not considered MAT, education regarding its use in reversing an opioid overdose is important. Emergency responders now administer it. Many areas have overdose hotlines that re-entering inmates should know about. Offenders should be informed that immunity laws apply to any 911 call for an emergency dose of Narcan to prevent an overdose. Released inmates should not be reluctant to make that call when someone is in need.

Answers to Exercise 2, page: Myth or Fact

a. Myth: An inmate who has a history of opioid addiction, but who has been free from opioid use during a stay in prison or jail may still benefit greatly from a period of MAT once he or she is released to the community.

b. Fact: Relapse rates and recidivism rates are high for re-entering offenders with drug and alcohol problems. Treatment during incarceration improves an offender's chances of staying in recovery and out of custody, but if followed up by community-based treatment and aftercare chances are better. If MAT is also available, chances improve further.

c. Myth: Alcoholics Anonymous and Narcotics Anonymous take no stand on MAT. The Narcotics Anonymous (NA) website states the following: *"In Narcotics Anonymous, members are encouraged to comply with complete abstinence from all drugs including alcohol. It has been the experience of NA members that complete and continuous abstinence provides the best foundation for recovery and personal growth. NA as a whole has no opinion on outside issues, including prescribed medications. Use of psychiatric medication and other medically indicated drugs prescribed by a physician and taken under medical supervision is not seen as compromising a person's recovery in NA."*

d. Myth: It is clear which drugs reinforce the pathways for addiction. Some medications have no abuse potential, including several of those used for MAT. Others have moderate or high abuse potential. If they are misused, abused or diverted the person taking them illicitly, may well not be considered clean. If they are used as directed, they can be a part of long-term recovery from addiction.

e. Fact: Most opioid dependent individuals are likely to deal with mental health disorders at some point. They can still benefit from MAT and from integrated treatment for co-occurring substance use and mental health disorders. Medication interactions should be considered.

f. Myth: MAT is now available through private physicians. Also the demographic of people seeking MAT for opioid addiction has changed significantly. More people with addiction to pain medications are receiving treatment.

Review and Resources

- The body produces its own opioids that can activate adrenaline, endorphins and other chemical messengers. When opioid drugs such as heroin, morphine and Percocet® are used lasting changes which interfere with survival instincts, memory, learning, and stress responses result.

- Heredity and other factors can affect susceptibility to opioid addiction, including co-occurring mental health disorders and chronic pain. The interaction of environment and genetics can greatly contribute to development of addictive disorders.

- As increasing numbers of women enter the criminal justice system, many high-risk pregnancies will require collaboration with pre-natal care. Opioid use during pregnancy is usually treated with methadone, which is the safest and recommended approach, although buprenorphine has shown promising results.

- The FDA has approved two medications for ORT (methadone and buprenorphine) that are effective and widely used in combination with counseling and recovery support. These treatments are typically underutilized by corrections.

- Vivitrol injections and other forms of naltrexone are approved for treating alcohol or opioid addiction and are effective with offenders. Acamprosate and disulfiram (Antabuse) are approved for treating alcoholism, but are not as widely used in community-based treatment.

- There are four phases of MAT: induction, stabilization, maintenance, and tapering. RSAT staff can help prepare re-entering offenders who are referred to MAT providers in the community by educating them about the process, expectations, and required information for beginning treatment.

- Vivitrol is an opioid antagonist that blocks the effects narcotic drugs. It is not a controlled substance and is more likely to gain acceptance in correctional settings. The injection lasts 30 days and may have great potential for preventing relapse for re-entering offenders. It is effective for alcohol addiction treatment as well.

Resources

Medication-Assisted Treatment for Opioid Addiction: Facts for Families and Friends. (2009). HHS Publication No. (SMA) 09-4443.

Substance Abuse Treatment Advisory: Naltrexone for Extended-Release Injectable Suspension for Treatment of Alcohol Dependence. (2007). Volume 6, Issue 1. HHS Publication No. (SMA) 07-4267.

Substance Abuse Treatment Advisory: Emerging Issues in the Use of Methadone. (2009). Volume 8, Issue 1. HHS Publication No. (SMA) 09-4368.

TIP 43: Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs. (2005). HHS Publication No. (SMA) 08-4214.

TIP 45: Detoxification and Substance Abuse Treatment. (2006). HHS Publication No. (SMA) 08-4131.

TIP 51: Addressing the specific needs of women. (2009). (HHS Publication No. SMA 09-4426).

Treatment Improvement Protocol (TIP) 40: Clinical Guidelines for the Use of Buprenorphine in the Treatment of Opioid Addiction. (2004). HHS Publication No. (SMA) 07-3939.

National Institutes of Health. Clinical Trails Database: ClinicalTrails.gov.
www.clinicaltrials.gov/ct2/results?term=Vivitrol&Search=Search

State Opioid Treatment Authority Listing
http://dpt2.samhsa.gov/regulations/smalist.aspx

National Treatment Locators
www.dpt.samhsa.gov/treatment/treatmentindex.aspx

SAMHSA Treatment Locator
http://findtreatment.samhsa.gov/

Opioid Treatment Program Locator
http://dpt2.samhsa.gov/treatment/directory.aspx

Buprenorphine Physician and Treatment Locator
http://buprenorphine.samhsa.gov/bwns_locator/

Buprenorphine Patient - Physician Matching System
http://www.naabt.org/

Module III: The Medications

F. Methadone
G. Buprenorphine
H. Naltrexone
I. Other medications and regulatory requirements
J. Review and resources

LEARNING OBJECTIVES:

After completing this module, participants will be able to:

1. Discuss the different medications used to treat opioid addiction, explain how they work and give examples of each.
2. List the providers qualified to dispense the various medications and discuss the associated risks.
3. Summarize the characteristics of the medications and the type of clients appropriate for each.

Knowledge Assessment

Pre/Post-Test: True or False

1. Only physicians that have taken the required training can prescribe buprenorphine. Nurse practictioners and other medical providers cannot. T

2. Methadone must not be started until 12-24 hours after the last opioid use. F

3. It is illegal for employers to fire someone just because they are receiving MAT, but it is legal for them to drug test and ask for documentation from the treating physician if they find burprenorphine or methadone. T

4. The maximum amount of time an offender should receive medication in MAT is 90 days. F

5. Vivitrol has improved outcomes for re-entering offenders; it significantly reduces the craving for alcohol, but does not have a significant affect on opioid cravings for some people although it does for others. T

6. Burprenorphine has been a very effective treatment for opioid addiction and results in increased retention in treatment. T

7. Since naltrexone is not a controlled substance there is no risk of overdose when it is used to treat opioid addiction. F

8. Acamprosate is an opioid agonist that can help relieve chronic pain. F

9. If a pregant woman is treated with buprenorphine during her pregancy she cannot be treated with Suboxone. She is treated with the formula that contains just buprenorphine. T

FDA-Approved Medications for Substance Use Disorders

Medication Brand name	Use(s)	FDA Approval	Effects	Delivery	Controlled Substance	Warnings
Acamprosate Calcium Campral	Alcohol	2004	**Anti-craving** - cravings decrease as the medication relieves symptoms of protracted alcohol withdrawal or post-acute withdrawal	Swallowed in pill form three times a day	No	Increases in suicidal thoughts and depression possible; may be contraindicated for those with kidney problems
Disulfiram Antabuse	Alcohol	1951	**Aversive** - causes severe physical discomfort if patient consumes alcohol, including severe nausea	Swallowed in pill form once a day	No	Risk of liver damage, drug interactions and negative effects for people with certain mental disorders
Naltrexone			**Antagonist** - or blocker - acts on opioid receptors, blocks cue-triggers and craving and decreases the euphoric effects of alcohol. Blocks euphoric and analgesic effects of opioids; initiates withdrawal symptoms if taken while opioids are in the body. Safe to take 7-10 days after last opioid use.	Swallowed in pill form daily. Prescribed by any medical provider	No	Black box liver warning. High risk of overdose during relapse due to decreased tolerance or using large amounts of opioids to override the blocking effect. Risk of drug interactions during a medical emergency
Pills: Depade ReVia	Alcohol Opioids	1994 1984				
Injectable: Vivitrol	Alcohol Opioids	2006 2010		Injectable form once a month from any provider		
Buprenorphine	Opioids	2002	**Partial Agonist** - Long-acting partially synthetic opioid; relieves withdrawal and craving; prevents other opioids from working. Does not have full euphoric effect of other opioids- may not eliminate withdrawal for heavy users. Suboxone is formulated with antagonist to prevent abuse/ IV use and is not safe to use with other opioids. Subutex only, is safe for pregnant women. Safe to take 12-24 hours after last use.	Tablet dissolved under the tongue -daily or every other day. 30 day supply by can be prescribed by physicians trained in its use	Schedule III	Moderate to low risk of overdose. Potentially fatal interaction with benzodiazepines. Moderate to high risk of overdose when combined with other substances
Subutex	single drug formula					
Suboxone	Compound formula with naloxone			Tablet **or film** dissolved under tongue; also available by prescription; all forms available through opioid treatment programs		
Methadone	Opioids	1948	**Full Agonist** - A long-acting synthetic "full" opioid that relieves withdrawal, blocks craving, and may prevent euphoria if other opioids are used. At proper dosage adequate normal functioning without impairment or intoxication. Action similar to body's endorphins. Can be taken at any time and used with other opioids. Most effective, retention in long-term treatment. Best researched and safest during pregnancy.	Typically, as an oral solution dispensed once a day only at federally certified opioid treatment programs	Schedule II	Black box warning about heart problems. High risk of overdose during initial phases of treatment or if combined with other drugs. High risk of overdose when combined with other substances. Potentially fatal interaction with benzodiazepines

A. Methadone

WHAT IT IS?

Methadone is a long-acting opioid medication that reduces cravings and withdrawal symptoms. It is usually given daily, in a liquid form, but other forms such as pills and wafers may be available. Some of the brand names for methadone are: Dolophine, Methadone Diskets, and Methadose.

WHAT IT DOES?

Methadone can have an evening-out-effect with fewer highs and lows than other opioids because it leaves the body very slowly. It satisfies the areas of the brain that opioids act on, stopping withdrawal symptoms and reducing craving. It can do this without the euphoric effects that short acting opioids produce. The person taking a prescribed dose of methadone feels normal, can continue to work, and can perform tasks, like driving. Since it controls withdrawal symptoms and blocks craving, people who are dependent on opioids tend to stick with it. This allows them to rebuild a life in recovery and avoid the health hazards and lifestyle of illegal drug use.

WHO CAN PRESCRIBE IT?

Methadone is only given at specially licensed and registered clinics.

WHO IT WORKS BEST FOR?

Methadone is generally used to treat adults 18 and older who are heavy opioid users. It is usually recommended for people with a longer use histories, and intense cravings and withdrawal symptoms. It is the recommended treatment for opioid dependent women during pregnancy. It can work for people who have made other unsuccessful attempts to stop. People who are considering methadone have to be able to get to a clinic each day. Methadone has also been effective for people who are undergoing treatment for HIV/AIDS. It may be a good choice for people who also have severe or chronic pain.

RESEARCH OUTCOMES

Methadone has been in use for many years. It is the best studied approach to MAT for opioid dependence. Research shows, at the right dosage, methadone treatment is highly effective, when combined with counseling and recovery support.

STARTING METHADONE

Methadone can be started at any time. There is no need to wait after the last use until withdrawal symptoms begin. After the first dose of methadone best practice is for patients stay at the clinic for a few hours under observation. If withdrawal symptoms are a problem, 2-4 hours after the first dose another small dose may be given. The

goal is to find the dose that controls withdrawal symptoms with the fewest side effects, starting out slowly and building up as needed. This type of practice lowers the risk of overdose.

SIDE EFFECTS

Most people have side effects from methadone. Frequent side effects include constipation, sleepiness, and sweating. People who use methadone long-term may have moderate sexual side effects. It can also make heart problems worse or cause them.

WARNINGS

- Higher risk of overdose at start of treatment
- Risk of fatality when combined benzodiazepines
- High risk of overdose when combined with other substances, including alcohol
- Risk of driving impairment at the start of treatment or during dosage adjustments
- Increased risk of serious heart problems and sudden cardiac death

  Methadone now has black-box warning about heart problems. To reduce this risk, experts recommend the following:

  - Inform people about the heart risks
  - Screen patients for heart health and history
  - Include heart tests as part of the treatment program
  - If a problem is found, the methadone dose should be lowered or stopped

HOW LONG TO BE ON IT?

The decision of how long to take methadone is an individual choice. Most of the time, treatment with methadone for less than 90 days, has little effect. People who stay on it a year or more have the best rates of success. Some people stay on it for many years, and others choose to taper off very gradually. There is some research that has shown that a high number of people return to drug use when they stop taking methadone. This is one reason patients may stay on methadone for as long as they wish to do so. There is withdrawal from methadone when it is abruptly discontinued. Methadone withdrawal is less intense that heroin withdrawal, but it lasts longer. Gradually decreasing doses of methadone, over a number of months, can reduce the withdrawal symptoms.

LEGAL ISSUES

Once a person has stabilized on the right dose of Methadone, there is no effect on physical and mental functioning, including reaction times and judgment. Methadone does not affect the ability to get a driver's license. Some commercial licenses may be restricted. People receiving methadone treatment are protected by confidentiality laws and anti-discrimination laws as long as they are not using illegal drugs. Methadone may show up on a drug screen. An employer cannot legally fire someone for being treated with methadone as long as he or she can document that it is prescribed and uses it as prescribed.

- It is illegal to discriminate against people because they are receiving MAT.
- Government services, student loans and food stamps cannot be denied because of MAT.
- Child welfare or probation/parole cannot **legally** require people to stop MAT.
- Opioid treatment programs are required to help with medical, counseling, and vocational needs.

There have been legal challenges to denying methadone to inmates. They are summarized in the document below by the Legal Action Center.

INFORMATION AND EDUCATIONAL MATERIALS

More information on methadone:
http://www.nlm.nih.gov/medlineplus/druginfo/meds/a682134.html

How to Use Methadone Safely:
http://www.dpt.samhsa.gov/methadonesafety/text_publications/follow_directions_brochure.aspx

Methadone Treatment for Pregnant women:

http://store.samhsa.gov/product/Methadone-Treatment-for-Pregnant-Women/SMA09-4124

Know Your Rights: Rights for People on MAT:

http://partnersforrecovery.samhsa.gov/docs/know_your_rights_brochure_0110.pdf

Legality of Denying Access to Medication Assisted Treatment in the Criminal Justice System (2011). Legal Action Center:
http://www.lac.org/doc_library/lac/publications/MAT_Report_FINAL_12-1-2011.pdf

B. Buprenorphine

WHAT IT IS?

Buprenorphine is a long acting opioid medication that reduces craving and withdrawal symptoms. It is usually given once a day or once every two days. . Buprenorphine comes in a pill or film both of which are allowed to melt under the tongue. It should not be chewed or swallowed. It is made in two formulations:

- Buprenorphine with naloxone [brand name Suboxone] is the formulation most commonly prescribed for MAT. The naloxone is added to prevent misuse. It can cause withdrawal symptoms in people who try to abuse buprenorphine by injecting it.

- Buprenorphine [brand name Subutex] is the formulation with the single drug and does not have the added naloxone. It is sometimes used for MAT with pregnant women and with people who are switching from methadone.

WHAT IT DOES?

Both formulas work the same way to partially satisfy some of the areas of the brain that opioids act on. This means there is less risk of overdose. It may also have a milder withdrawal when it is discontinued. The person taking a prescribed dose of feels normal, can continue to work and can perform tasks, like driving. It controls withdrawal symptoms and blocks craving. People can get buprenorphine at a doctor's office and be prescribed up to a 30 day supply. This allows people who can't or won't get methadone every day from a certified program to rebuild a life in recovery and avoid the health hazards and lifestyle of illegal drug use.

WHO CAN PRESCRIBE IT?

Doctors can prescribe buprenorphine for addiction treatment if they complete special training and certification (8 hours of training). They can write a buprenorphine prescription at their office that can be filled at a public pharmacy.

WHO IT WORKS BEST FOR?

Buprenorphine is approved for use in persons age 16 or older. Some individuals with heavier use histories also have success with buprenorphine and may even prefer it to methadone. It also works well for people who have been on methadone. It can help people who are replacing oral pain medications. People can be treated in a doctor's office and self-administer up to 30 day supply of medication at home.

RESEARCH OUTCOMES

Buprenorphine was more recently approved for MAT so there are not as many studies of safety and effectiveness as there are for methadone. However, studies to date have found long-term MAT with buprenorphine, combined with counseling and recovery support is very effective. Although methadone is the safest treatment for pregnant women, buprenorphine has shown good outcomes with pregnant women in recent studies.

STARTING BUPRENORPHINE

It is necessary to wait 12-24 hours after last opioid use before starting Buprenorphine, after withdrawal has started, in order to avoid uncomfortable symptoms after taking the medication. After the first dose patients stay at the doctor's office or treatment center for a few hours. The doctor or nurse checks on them regularly to watch their reaction. If withdrawal symptoms are a problem, 2-4 hours after the first dose another small dose may be given. The goal is to find the dose that controls withdrawal symptoms with the fewest side effects.

SIDE EFFECTS

Many people have some side effects from buprenorphine. These may include constipation, some sleepiness, sweating, and headache. Sometimes people using buprenorphine for long-term MAT have some sexual problems.

WARNINGS

- Moderate risk of overdose
- Risk of fatality when combined benzodiazepines
- Moderate to high risk of overdose when combined with other substances, including alcohol

HOW LONG TO BE ON IT?

The decision of how long to take buprenorphine is an individual choice. There is not as much information on long-term treatment with buprenorphine. Most of the research shows that the longer patients are treated with buprenorphine, the fewer complications and relapses they have. It is safe to stay on buprenorphine for a long-term. Buprenorphine has been used with adolescents and others with shorter opioid use histories. Stopping treatment early, after nine months or less increases the chances of returning to drug use. Many people discontinue treatment by gradually tapering the dosage. The withdrawal from buprenorphine tends to be less intense than withdrawal from methadone.

LEGAL ISSUES

Once a person has stabilized on the right dose of buprenorphine, there is no effect on physical and mental functioning, including reaction times and judgment. It does not affect the ability to get a driver's license, although commercial licenses may be restricted. People receiving buprenorphine treatment are protected by confidentiality law and anti-discrimination laws as long as they are not using illegal drugs.

- It is illegal to discriminate against people because they are receiving MAT.
- Government services, student loans and food stamps cannot be denied because of MAT.
- Child welfare or probation/parole cannot **legally** require people to stop MAT.
- Opioid treatment programs are required to help with medical, counseling, and vocational needs.
- Buprenorphine may show up on a drug screen.
- An employer cannot legally fire people for being treated with buprenorphine as long as they do not lie about it can document that it is prescribed, and are using it as prescribed.

INFORMATION AND EDUCATIONAL MATERIALS

More information about buprenorphine:
http://www.nlm.nih.gov/medlineplus/druginfo/meds/a605002.html

The Facts about Buprenorphine:
http://www.kap.samhsa.gov/products/brochures/pdfs/buprenorphine_facts.pdf

Know Your Rights: Rights for People on MAT:

http://partnersforrecovery.samhsa.gov/docs/know_your_rights_brochure_0110.pdf

The Buprenorphine Information Center site is part of the US Center for Substance Abuse Treatment:
http://buprenorphine.samhsa.gov/index.html

C. NALTREXONE

WHAT IT IS?

Naltrexone is an opioid blocker. It keeps opioids from acting on the brain. Even if people use opioids naltrexone blocks euphoric and pain relieving effects. This can

help some people avoid relapse. Naltrexone has a similar blocking action with the euphoric or reinforcing effects of alcohol.

The long acting injection is marketed under the name Vivitrol® and is administered once a month. Naltrexone also comes as a pill that is taken orally every day or two. Some of the brand names for naltrexone pills are ReVia® and Depade®.

Naltrexone is not a controlled substance and it has no potential for addiction or abuse. Most people feel completely normal while taking naltrexone; however, it does have risks. If people take opioids while using naltrexone, they will not get the desired effect and may experience withdrawal symptoms. If they attempt to take enough opioids to override the blocking effect, they can overdose. There is also a high risk of overdose if people return to opioid use after a period of being treated with Naltrexone, usually due to decreased tolerance.

If people drink alcohol while taking Naltrexone, they will not experience any bad effects, but they also will not experience the euphoric effects of alcohol either and this may impede cravings for more.

WHAT IT DOES?

Naltrexone is not used to help with opioid withdrawal symptoms. It cannot be taken safely until a person has stopped all opioids for at least 7-10 days. Some people who have used it say it helps reduce their cravings over time, but it does not reduce craving and withdrawal symptoms to the same degree as methadone and buprenorphine do.

The long-acting injection (Vivitrol) has been the most effective way to use naltrexone in MAT. It resolves the problem of medication adherence associated with the self-administered pill. It can give people the extra motivation they need, help discourage a return to using, and give them a chance to benefit from counseling and recovery support.

Vivitrol® does have a substantial effect on alcohol craving and has performed best in clinical trials with patients that have abstained from alcohol for at least 4 days prior to beginning treatment. Of those who were abstinent when they began treatment 32% remained abstinent during the entire six-month trial compared to 11% in the placebo group (O'Malley et al. 2007).

An injection can help people coming out of jails, prisons, or long-term treatment programs to avoid using or drinking for a month or more. This gives them a chance to locate counseling and community support. For some people, it may also help decrease the chances of using opioids or overdosing on opioids during the initial weeks following release.

WHO CAN DISPENSE IT?

Any doctor, physician's assistant, or nurse practitioner can administer a Vivitrol® injection or write a prescription for naltrexone that can be filled at a public pharmacy. They do not need special training and can treat people at their office.

WHO IT WORKS WELL FOR?

Naltrexone works well for adults age 18 and older who have less intense withdrawal symptoms and cravings and are able to stop opioid use for 7-10 days prior to beginning treatment. It is a good option for people who want to eliminate all opioids from their body right away. It works well for people who are highly motivated, such as those who may lose a job or go to jail unless they stay drug and alcohol free. Some preliminary research indicates it may be effective for probationers and parolees (Coviello et al., 2012) and adolescents who use opioids (Fishman et al., 2010).

It is also good for people who have difficulty keeping up with daily pills and do better with a monthly injection. People who have alcohol problems may find it helps relieve craving and helps them avoid drinking, especially if they have already withdrawn from alcohol for at least 4 days. People who must or may need to take opioid medication for pain are not good candidates for MAT with naltrexone.

RESEARCH OUTCOMES

Vivitrol was approved for MAT with opioid addiction very recently, so there are fewer studies on safety and effectiveness. The pill form has not worked well for people who are not motivated to stick with treatment. They simply stop taking the pills when they want to get high. When the long-acting injection is used (Vivitrol), people tend to stay in treatment longer and are less likely to be re-incarcerated. More research is available on Vivitrol's use with alcohol addiction, which was approved in 2006. It has demonstrated significant effects on six-month abstinence rates and reduced the number of days spent drinking and the number of drinks consumed (O'Malley et al. 2007).

STARTING NALTREXONE

Naltrexone cannot be started until at least 7-10 days after the last opioid use, since it triggers withdrawal symptoms when opioids are in the system. It can be started anytime for patients using alcohol, including those who are actively drinking. People do not usually need to stay at the doctor's office for observation when they start naltrexone. The pill form can be started at home; the injection can be given in any medical office or at a treatment center.

SIDE EFFECTS

Most people do not have many side effects from naltrexone. It is one of the safer medications used in MAT. The most frequent side effects are soreness in the area of the injection or trouble feeling joy or pleasure. Some people may experience one or more of these rare side effects: stomach pain or nausea, difficulty sleeping, feeling tired, headache, dizziness, or nervousness, or they may have a sensitivity to naltrexone.

Overdose rates are high for people who try to use opioids while they are taking naltrexone. They are also high for those who return to opioid use after treatment, due to decreased tolerance.

WARNINGS

- High-risk of overdose if people treated with naltrexone use large amounts of opioids to override blocking effect
- High-risk of overdose during relapses into opioid use due to lowered tolerance
- Risk of triggering withdrawal symptoms if opioids are being used
- Risk of drug interaction if opioids are given in a medical emergency
- Risk of depression and suicidal thoughts

HOW LONG TO BE ON IT?

The decision of how long to take naltrexone is an individual choice. Like other medications used for long-term MAT; it is safe to stay on it for as long as it is helpful. Most of the time, treatment for less than 90 days has little long-term effect. Some research has shown that a high number of people return to drug use when they stop taking naltrexone.

There is no withdrawal from naltrexone. It can be stopped at any time. However, after a long acting injection is given, the effects will remain in for a 30 day period.

LEGAL ISSUES

Not a controlled substance; legal issues are not a concern.

INFORMATION AND EDUCATIONAL MATERIALS

More information about naltrexone:
www.nlm.nih.gov/medlineplus/druginfo/meds/a609007.html

Facts about Naltrexone:
www.kap.samhsa.gov/products/brochures/pdfs/naltrexone_facts.pdf

Helping Patients Who Drink Too Much: A Clinician's Guide:
http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm

Research to Practice: MAT for alcoholism

In every discipline a period of time is required by the field to take the information from research studies and incorporate it into practice. This is sometimes referred to as diffusion of evidence-based practices or the science to service gap (Lamb, Greenlick & McCarty, 1998). The corrections field is no stranger to this phenomenon. In some instances, data driven approaches to rehabilitation have also taken time to infiltrate the criminal justice field. However, the literature on the science to service gap in the addiction treatment field indicates a pressing need to encourage effective treatments that are supported by research (McGovern et al., 2004; IOM, 2005).

Despite recent FDA approval of two newer medications for alcoholism treatment, their use among community providers is still limited (Abraham, Knudsen & Roman, (2011). A national survey of treatment providers found that these medications were only used in 15%-17% of community programs (OAS, N-SSATS, 2009). One commentary in 2007 points out that although more than 19 million people were estimated to have alcohol problems only 1.6 million accessed substance abuse treatment and only 720,000 prescriptions for medications for alcohol addiction were filled (Mark et al., 2009). The low utilization of pharmacological interventions supported by research for the treatment of alcohol problems can be seen as evidence of the depth of the science to service gap (O'Malley et al., 2007).

Some also speculate that because the foundation of recovery for countless alcoholics has been abstaining from all mood altering substances, there is reluctance on the part of treatment providers to deviate from the "formula." This may be one of the reasons MAT for alcohol addiction is not as widely available among community-based treatment providers as is MAT for opioid addiction.

There is less research available on the use of MAT for alcoholism with incarcerated populations, with the exception of a few recent studies and older research on the use of disulfiram or Antabuse during community supervision. Antabuse is no longer considered a first-line treatment choice, but still has its uses (NIAAA, 2005).

Vivitrol is the newest medication to be approved for treating alcohol problems, and as we have seen, it has demonstrated effectiveness. The chart on the following page is from the National Institute for Alcohol Abuse and Alcoholism (NIAAA) Clinicians Guide (2005), and provides a quick comparison of the medications. It can be accessed along with other useful materials at the link on page 39 of the NIAAA website. In addition to naltrexone, in injectable and pill form, two other medications are approved for treating alcohol abuse and addiction. According to the NIAAA, all of them are effective adjuncts to treatment and help to reduce relapses, the number of drinking days, the number of drinks, and to increase periods of abstinence.

Disulfiram (Antabuse) has been in use for many years. Its action interferes in the processing of alcohol, resulting in aversive physical responses to any intake of alcohol. NIAAA clinical guidelines state: “The utility and effectiveness of disulfiram are considered limited because compliance is generally poor when patients are given it to take at their own discretion” (2005, p. 2). Its use is limited to highly motivated patients and those who can be directly observed while they take the medication. It is contraindicated for patients that are still drinking.

Acamprosate (Campral) acts on the GABA and glutamate neurotransmitter systems. Post-acute withdrawal from alcohol is characterized by depression, anxiety, restlessness, and insomnia, among other complaints. GABA moderates and maintains balance of the excitatory neurotransmitters that lead to anxiety. Too little GABA tends to result in anxiety disorders. Acamprosate is thought to control the anxiety, restlessness, and dysphoria that lead to relapse in abstinent alcoholics.

A meta-analysis of 17 clinical trials of acamprosate use in Europe showed that 36% of patients taking acamprosate were continuously abstinent at six months, compared with 23% of the placebo group. U.S. trials failed to confirm the results of the European studies, but there were several conditions that were not replicated. For example, the European subjects had more severe alcoholism and were abstinent longer prior to beginning the medication. Some medications tend to show a greater effect with more severely addicted patients (NIAAA, 2005).

Although the utilization of medications for alcoholism is not widespread among community-based providers, some private physicians will prescribe them to their patients. With the advent of healthcare reform and expanded eligibility for coverage by 2014, re-entering RSAT clients with alcoholism may have the option to ask primary care providers to prescribe medications to support their recovery, especially if they have had difficulty remaining sober in the past. Since there is no potential for abuse with any of the approved medications, as long as they are seen as an adjunct to treatment and recovery support, they may help with transition to the community. Education about the role of medications that support abstinence from alcohol is an appropriate topic for clients in RSAT programs.

Medications for Treating Alcohol Dependence

	Naltrexone (Depade®, ReVia®)	Extended-Release Injectable Naltrexone (Vivitrol®)	Acamprosate (Campral®)	Disulfiram (Antabuse®)
Action	Blocks opioid receptors, resulting in reduced craving and reduced reward in response to drinking.	Same as oral naltrexone; 30-day duration.	Affects glutamate and GABA neurotransmitter systems, but its alcohol-related action is unclear.	Inhibits intermediate metabolism of alcohol, causing a buildup of acetaldehyde and a reaction of flushing, sweating, nausea, and tachycardia if a patient drinks alcohol.
Contraindications	Currently using opioids or in acute opioid withdrawal; anticipated need for opioid analgesics; acute hepatitis or liver failure.	Same as oral naltrexone, plus inadequate muscle mass for deep intramuscular injection; rash or infection at the injection site.	Severe renal impairment (CrCl ≤ 30 mL/min).	Concomitant use of alcohol or alcohol-containing preparations or metronidazole; coronary artery disease; severe myocardial disease; hypersensitivity to rubber (thiuram) derivatives.
Precautions	Other hepatic disease; renal impairment; history of suicide attempts or depression. If opioid analgesia is needed, larger doses may be required and respiratory depression may be deeper and more prolonged. Pregnancy Category C. Advise patients to carry a wallet card to alert medical personnel in the event of an emergency. For wallet card information, see *www.niaaa.nih.gov/guide*.	Same as oral naltrexone, plus hemophilia or other bleeding problems.	Moderate renal impairment (dose adjustment for CrCl between 30 and 50 mL/min); depression or suicidal ideation and behavior. Pregnancy Category C.	Hepatic cirrhosis or insufficiency; cerebrovascular disease or cerebral damage; psychoses (current or history); diabetes mellitus; epilepsy; hypothyroidism; renal impairment. Pregnancy Category C. Advise patients to carry a wallet card to alert medical personnel in the event of an emergency. For wallet card information, see *www.niaaa.nih.gov/guide*.
Serious adverse reactions	Will precipitate severe withdrawal if the patient is dependent on opioids; hepatotoxicity (although does not appear to be a hepatotoxin at the recommended doses).	Same as oral naltrexone, plus infection at the injection site; depression; and rare events including allergic pneumonia and suicidal ideation and behavior.	Rare events include suicidal ideation and behavior.	Disulfiram-alcohol reaction, hepatotoxicity, optic neuritis, peripheral neuropathy, psychotic reactions.
Common side effects	Nausea, vomiting, decreased appetite, headache, dizziness, fatigue, somnolence, anxiety.	Same as oral naltrexone, plus a reaction at the injection site; joint pain; muscle aches or cramps.	Diarrhea, somnolence.	Metallic after-taste, dermatitis, transient mild drowsiness.
Examples of drug interactions	Opioid medications (blocks action).	Same as oral naltrexone.	No clinically relevant interactions known.	Anticoagulants such as warfarin; isoniazid; metronidazole; phenytoin; any nonprescription drug containing alcohol.
Usual adult dosage	*Oral dose:* 50 mg daily. *Before prescribing:* Patients must be opioid-free for a minimum of 7 to 10 days before starting. If you feel that there's a risk of precipitating an opioid withdrawal reaction, administer a naloxone challenge test. Evaluate liver function. *Laboratory followup:* Monitor liver function.	*IM dose:* 380 mg given as a deep intramuscular gluteal injection, once monthly. *Before prescribing:* Same as oral naltrexone, plus examine the injection site for adequate muscle mass and skin condition. *Laboratory followup:* Monitor liver function.	*Oral dose:* 666 mg (two 333-mg tablets) three times daily; or for patients with moderate renal impairment (CrCl 30 to 50 mL/min), reduce to 333 mg (one tablet) three times daily. *Before prescribing:* Evaluate renal function. Establish abstinence.	*Oral dose:* 250 mg daily (range 125 mg to 500 mg). *Before prescribing:* Evaluate liver function. Warn the patient (1) not to take disulfiram for at least 12 hours after drinking and that a disulfiram-alcohol reaction can occur up to 2 weeks after the last dose and (2) to avoid alcohol in the diet (e.g., sauces and vinegars), over-the-counter medications (e.g., cough syrups), and toiletries (e.g., cologne, mouthwash). *Laboratory followup:* Monitor liver function.

Source: NIAAA - Helping Patients Who Drink Too Much: A Clinicians Guide. Appendix I - Clinician Support Materials, Updated 2007

Exercise 3: Who might benefit from MAT?

Now that you know about the medications, take a look at these offender profiles. Decide if the client is a candidate for MAT by endorsing the yes or no box. If you endorse "yes" then check off the medication, or medication, that might be appropriate. Check off all that apply.

☐ Yes ☐ No

❍**Methadone** ❍**Saboxone**
❍**Subutex** ❍**Vivitrol**
❍**Antabuse** ❍**Acamprosate**
❍**Naltrexone**

LENA: 30 years old, mother of twin boys age 7
Uses prescription opioids and heroin (snorts- no IV use)
3 counts of forgery; 1 count of prescription fraud
Boys in kinship placement with sister
Worked as LPN, but license revoked due to drug use
Arrested when her boyfriend stole a prescription pad
Repeated parole violations; multiple treatment failures; sexual abuse, trauma

"I just want my boys back. I'll do whatever I have to."

NICK: 26 years old, heroin addict
Gang affiliation; numerous arrests for violent crimes
Awaiting trial for aggravated felonious sexual assault
Was on parole after serving 4 years for a home invasion when arrested
Scars on his neck from IV drug use
Has been on and off methadone before

"I can do good if I get back on the clinic."

☐ Yes ☐ No

❍**Methadone** ❍**Saboxone**
❍**Subutex** ❍**Vivitrol**
❍**Antabuse** ❍ **Acamprosate**
❍**Naltrexone**

☐ Yes ☐ No

❍**Methadone** ❍**Saboxone**
❍**Subutex** ❍**Vivitrol**
❍**Antabuse** ❍**Naltrexone**
❍**Acamprosate**

STAN: 42 years old, Addicted to heroin
Does speedballs (injects heroin/cocaine mix)
Early criminal justice involvement
Early tobacco, alcohol, and drug use
Repeated arrests; multiple treatment failures
When he has stopped heroin, he drinks instead
Daily criminal activity to support his habit
Family history of alcoholism and mental illness

"I'm getting too old for this crap."

☐ Yes ☐ No

❍**Methadone** ❍**Saboxone**
❍**Subutex** ❍**Vivitrol**
❍**Antabuse** ❍**Acamprosate**
❍**Naltrexone**

Renee: 36 years old, pregnant; her drug of choice is oxycodone, but she has used heroin and other opioids.
Long history of arrests for prostitution and shoplifting
Juvenile detention, foster homes, multiple traumas
Daughter placed in foster care by Child Welfare Services
Wants to get in pre-release program for mom's and babies

"I can't lose this baby. This is my time to step up and be a mom."

RICKY: 57 years old, alcoholic; served 7 years-vehicular homicide.
Multiple DWI's; Simple assault
Has beginning stage cirrhosis
Moving in with daughter after release
Many failed treatments

"I just want to live a simple life and stay on the right side of the law"

☐ Yes ☐ No

❍**Methadone** ❍**Saboxone**
❍**Subutex** ❍**Naltrexone**
❍**Antabuse** ❍**Acamprosate**
❍**Vivitrol**

(Answers on page 54)

Medications for withdrawal, detoxification, and regulatory issues

Most treatment professionals think of words like detox and maintenance as clinical terms; however, they are also legal terms. MAT for opioid addiction is carefully regulated and overseen by federal agencies. The Controlled Substance Act of 1974 was amended to structure programs by statute.

The Center for Substance Abuse Treatment (CSAT) within the Substance Abuse and Mental Health Services Administration (SAMHSA) manages the accreditation system for methadone treatment programs. This system ensures that every methadone maintenance treatment program in the country is accredited and registered, providing better program accountability and improving treatment quality. All treatment programs, regardless of the source of their funding (private or nonprofit) are subject to these quality-driven accreditation standards (see the webpage of SAMHSA's Division of Pharmacologic Therapies http://www.dpt.samhsa.gov/regulations/regindex.aspx) before they can dispense methadone or other controlled drugs to treat opioid addiction.

The amended Controlled Substance Act of 1974 authorizes federally regulated clinics and opioid treatment programs to offer short-term medication-assisted detoxification for 21 days or less, or to offer maintenance treatment, which is anything in excess of 21 days, or both.

> Detox and Maintenance---PUBLIC LAW 93-281-MAY 14, 1974 Public Law 93-281
> May 14. 1974 AN ACT
>
> [s.11151 To amend the Controlled Substances Act to provide for the registration of practitioners conducting narcotic treatment programs.
>
> SEC2. Section 102 of the Controlled Substances Act (21 U.S.C. 802)is amended by adding the following after paragraph (26)
>
> " (27) The term 'maintenance treatment' means the dispensing, for a period in excess of twenty-one days, of a narcotic drug in the treatment of an individual for dependence upon heroin or other morphine-like drugs.
>
> " (28) The term 'detoxification treatment' means the dispensing, for a period not in excess of twenty-one days, of a narcotic drug in decreasing doses to an individual in order to alleviate adverse physiological or psychological effects incident to withdrawal from the continuous or sustained use of a narcotic drug and as a method of bringing the individual to a narcotic drug-free state within such period."
>
> The Attorney General shall register an applicant to dispense narcotic drugs to individuals for maintenance treatment or detoxification treatment (or both).

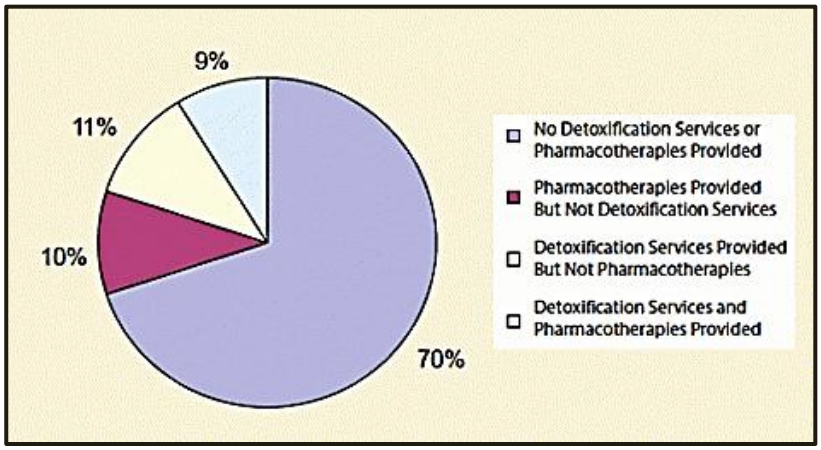
However, detoxification alone is not considered treatment, and research now shows that short-term detox rarely results in recovery. Along with medication dosage, *treatment "dosage*" must be sufficient. Research consistently demonstrates offenders do not begin to show behavioral changes until they complete at least 90 days of treatment (Letessa, 2010; Marlowe, 2002). MAT specifically, has very little effect unless an offender receives a minimum of six months treatment, but people who stay with MAT for at least one year have the best outcomes (CSAT, 2005; Roberts, Hayes, Carlise & Shaw, 2007). Therefore, maintenance treatment usually refers to long-term MAT of one year or more.

To avoid confusion between clinical and legal definitions the term detox is replaced with medically managed withdrawal when referring to MAT. With medically managed withdrawal from opioids a variety of prescription and over-the-counter medications may be used on a short-term basis to help ease the physical symptoms of withdrawal.

Prison and jail detoxification protocols

The National Institute on Drug Abuse (NIDA) Criminal Justice–Drug Abuse Treatment Studies (CJ-DATS) research network surveyed 198 jails and prisons. In addition to confirming the underutilization of pharmacotherapies, the survey found a majority of facilities offered no detoxification services (Oser, Knudsen, Staton-Tindall, Taxman & Leukefeld, 2009). The pie chart below shows the percentage of correctional facilities that offered each of four services related to substance abuse treatment. A total of 81% of facilities did not offer detoxification services.

Prisons and jails can legally administer methadone for up to three days to ease withdrawal without having to register as an opioid treatment program, as long as the methadone is obtained from a certified provider (BOP, 2009).



In 2004 SAMHSA recognized the National Commission on Correctional Healthcare (NCCHC) as an accreditation granting organization for opioid treatment programs located in correctional facilities. All programs must be certified through SAMHSA, but they cannot do so unless they are accredited by a federally designated agency. Since the NCCHC has been given the power of accreditation, it paves the way for correctional treatment programs to become certified by SAMHSA and able to dispense methadone and other medications. Facilities seeking accreditation through NCCHC are eligible for technical assistance from SAMHSA to help them succeed.

NCCHC OTP Accreditation site: www.ncchc.org/accred/OTP.html
Link to application for accreditation: http://www.ncchc.org/accred/OTP_Accred_App.pdf

BOP clinical practice guidelines

A link to the Federal Bureau of Prisons Clinical Practice Guidelines for Detoxification of Chemically Dependent Inmates (2009) is listed on the resource page at the end of this module. In addition to recommending a detailed substance use history, the use of withdrawal severity scales, and the substitution of long-acting medication for short acting drugs of abuse when possible, the guidelines contain specific protocols for various substances. For example, they specify that alcohol withdrawal may be treated with:

Benzodiazepines
Clonidine
Thiamine
Carbamazepine

These clinical guidelines can serve as a useful starting point for any facility that wishes to improve its medical management of withdrawal for offenders entering facilities. Unfortunately, the amount of suffering an addict endures does not correlate with the level of motivation to recover. Medications combined with psychological support are humane measures and good medical practice.

Some prescription medications that are used off label, on a short-term basis, for opioid withdrawal include:

Clonidine – normally used for blood pressure
Baclofen – derivative of gamma-aminobutyric acid (GABA) and a muscle relaxant
Lofexidine – alpha 2-adrenergic receptor agonist, used for blood pressure
Methocarbamal – normally used as muscle relaxant

A final word

The Drug Treatment Act of 2000 makes it possible for physicians who have met the requirements to offer approved forms of buprenorphine for the treatment of opioid addiction. Prior to 2000, opioid-like medications for the treatment of addiction could be dispensed by physicians, but not prescribed. They were only available through registered clinics. Additional legislation has made buprenorphine more available. Since 2006, physicians have been able to qualify to treat up to 100 patients. The FDA approval of Vivitrol in 2006 for alcohol and in 2010 for opioids provides additional MAT options available through primary care physicians. With healthcare reform on the horizon, this could mean many thousands of people who have never had access to effective treatment will have choices.

The criminal justice system can motivate offenders and make treatment adherence desirable. It can offer long-term treatment beyond what is offered in the community, and it can bring to bear its partnerships across human services to affect referrals to aftercare and ongoing treatment as offenders leave facilities and transition to community supervision. If effective pharmacological treatments become available within facilities – or upon re-entry, as collaborating agencies begin to utilize new medical benefits that include behavioral health treatment– RSAT inmates, and the rest of society, all face a brighter, more secure and safer future.

Answers to Exercise 3, page 46

Lena: Yes. Suboxone is likely first choice for Lena, since she does not have an extremely severe and long-term history of opioid addiction, but has significant consequences. She is motivated, so she could be a candidate for Vivitrol. Methadone is also acceptable.

Nick-:No. Nick may not be appropriate for treatment at this time since he will serve remaining time on his home invasion sentence and may be facing additional time if convicted on current charges. His history of gang affiliation may suggest he is a risk for diversion or trafficking while in custody. When he is closer to release he may be reevaluated for MAT.

Stan: Yes. Methadone is likely the best choice for Stan, due to his long addiction history. Saboxone may also work for Stan, if it controls his withdrawal symptoms and is offered as part of a highly structured treatment program. Vivitrol is also possible and might help Stan not to substitute alcohol.

Renee: Yes. Methadone is indicated for Renee. If she were unable to be treated during her pregnancy with methadone or if she wanted to be treated with buprenorphine, Subutex would be acceptable.

Ricky: Yes. Vivitrol for Ricky's alcohol addiction would likely be the first choice. Ricky's daughter would have to take responsibility for monitoring medication compliance if Antabuse were prescribed. Acamprosate might also work for Ricky and would be and option if Vivitrol did not help; however, compliance could be an issue.

Review and Resources

- The medications approved by the FDA for MAT are for the treatment of opioid addiction, alcoholism, and alcohol abuse. The quick reference chart at the beginning of the module compares the characteristics of each. They differ in their availability, their mechanisms of action, and in their effectiveness. There are risks associated with all of the medications. Clients should be aware of the risks, as well as the benefits.

- Methadone and buprenorphine are both used for ORT. They are long-acting opioid agonists (methadone –a full agonist and buprenorphine –a partial agonist). They are extremely effective when combined with counseling and recovery support. But, buprenorphine can be prescribed by a private physician. Both have been used in correctional facilities, but not to any great degree. They are controlled substances and are carefully regulated.

- Vivitrol is the long-acting injectable form of the opioid antagonist, naltrexone, which is also available in pill form. Both forms are used to treat alcoholism and opioid addiction by blocking the action of opioids at the receptor site.The injectable form is best, since medication adherence is a problem with the self-administered pill form. Naltrexone is not a controlled substance and may be especially well suited for correctional treatment.

- Disulfiram (Antabuse) and Acamprosate are approved for treatment of alcoholism and alcohol abuse, but Disulfiram use is limited mostly to patients that can be observed taking the medication daily. Acamprosate has been successful in European studies at increasing abstinence. It works by relieving some of the anxiety and dysphoria associated with post-acute withdrawal from alcohol. Vivitrol has demonstrated significant results in reducing craving, drinking days, the number of drinks, and in increasing abstinence rates.

- Many medications are used to help ease withdrawal symptoms. The BOP has clinical guidelines for safe detoxification from alcohol, opioids, barbiturate, and other substances of abuse. There seems to be a shortage of detoxification services available to inmates. Although detoxification is not treatment and relapse is likely to occur without long-term services, assisting inmates who are in withdrawal is good practice and an ethical responsibility.

- Increased access to MAT has the potential to bring effective treatment to more offenders. The Affordable Care Act, fully effective in most states by 2014, may offer opportunities for RSAT programs to help re-entering offenders access medical coverage and subsidize MAT in the community.

Resources

Detoxification of Chemically Dependent Inmates - Federal Bureau of Prisons. Clinical Practice Guidelines, August 2009: http://www.bop.gov/news/PDFs/detoxification.pdf

TIP Series 45: Detoxification and substance abuse treatment. (2006). DHHS Publication No. SMA 06-4131. Rockville, MD: Substance Abuse and Mental Health Services Administration.

*TIP Series 54: Managing chronic pain in adults with or in recovery from substance use disorders.(*2012a). HHS Publication No. SMA 12-4671. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Peer support:

- NA meeting locator: http://www.na.org/?ID=home-content-fm
- Cocaine Anonymous: http://www.ca.org
- Heroin Anonymous: http://www.heroin-anonymous.org/
- Methadone Anonymous: http://www.methadonesupport.org/
- SmartRecovery: http://www.smartrecovery.org
- Double Trouble in Recovery: http://www.doubletroubleinrecovery.org
- Dual Recovery Anonymous: http://draonline.org

National and local advocacy – may also offer education and peer-based support:

- Faces and Voices of Recovery: http://www.facesandvoicesofrecovery.org/
- National Alliance of Methadone Advocates: www.methadone.org
- Advocates for Recovery through Medicine (ARM): www.methadonetoday.org/armhelp.htm
- National Alliance of Advocates for Buprenorphine Treatment (NAABT): www.naabt.org
- Opioid Dependence Resource Center http://www.methadone.net
- National Advocates for Pregnant Women http://www.advocatesforpregnantwomen.org/
- The Buprenorphine Information Center at the Center for Substance Abuse Treatment. http://buprenorphine.samhsa.gov/index.html

Substance Abuse and Mental Health Services Administration, Division of Pharmacologic Therapies. Patient education materials-retrieved from http://dpt.samhsa.gov/index.aspx

- Medication Assisted Treatment (MAT) for substance use disorders
- The facts about naltrexone for treatment of opioid addiction (SMA) 09-4444
- Medication Assisted Treatment for opioid addiction: Facts for families and friends (SMA) 09-4443
- Introduction to methadone (SMA) 06-4123

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Appendix A:

Barnstable County, Massachusetts Sheriff's Office Inmate MAT Education Program

Medication-Assisted Recovery

The Barnstable County Sheriff's Office
2012

Jessica Gallagher MSN, RN

Medication-Assisted Recovery

- The use of medications, **in combination** with counseling and behavioral therapies, to provide a whole-patient approach to the treatment of substance use disorders.

Purpose of Presentation

- To provide correct information about substance abuse treatment options.
- To address myths and misinformation surrounding medication-assisted recovery.

Medications used to treat substance abuse…….. what do they do?

- Detox a person/prevent withdrawal
- Reduce cravings
- Block the feeling of being "high"
- To provide protection from impulsive use

Outline of Presentation

- What is Medication-Assisted Recovery?
- Treatments for:
  - Tobacco/Nicotine Addiction
    - Replacement Therapy
    - Medications: Zyban, Chantix, Wellbutrin
  - Alcohol Dependence
    - Medications: Antabuse, Campral, Naltrexone/ Vivitrol
  - Opioid Dependence
    - Medications: Methadone, Suboxone, Naltrexone/Vivitrol

Tobacco/Nicotine Addiction

- Addiction to:
  - Smoking Cigarettes
  - Smoking Cigars
  - Chewing Tobacco
  - Dipping Tobacco
- Currently 19% of Americans smoke cigarettes

Why Quit?

- Financial Cost:
  - Pack-a-day smoker
  - $60/week, $240/month
- Smell on breath, clothing
- Nagging "smokers cough"
- Decreases taste of food

AND the most important reason.....

Medications used to assist with Tobacco/Nicotine Addiction

- Chantix (Varenicline)
- Wellbutrin or Zyban (Bupropion)

All require prescribing by a physician and are often used with a form of Nicotine Replacement Therapy

Your Health!

- Each cigarette smoked shortens a smoker's life by **11 minutes**.
- Each pack of cigarettes shortens a smoker's life by **3½hours**.
- Each week, a pack-a-day smoker loses **1 day** of life.
- Smokers lose, on average, **14 years** of life.

Alcohol Dependence

- **Alcohol Misuse**: When a person continues to drink alcohol even though it causes significant problems in their life.

If alcohol misuse continues over a period of time, it can lead to.....

- **Alcohol Dependence:** A physical and emotional addiction to alcohol which disrupts health and relationships, and can result in neglecting responsibilities, or legal problems.

Nicotine Replacement Therapy

- Forms:
  - The Nicotine Patch
  - The Nicotine Inhaler
  - Nicotine Nasal Spray
  - Nicotine Gum
  - Nicotine Lozenge
  - Nicotine "Mist" Cigarettes

Medications Used to Treat Alcohol Dependence

- **Antabuse** (Disulfiram)

A prescription medication that causes a bad reaction (nausea, vomiting, and anxiety)if people drink alcohol while taking it. Knowing that it will make them ill if they drink, it helps them not to drink. Antabuse is a non-addictive medication.

*Only works if the person **takes** their medication

Medications Used to Treat Alcohol Dependence (Cont.)

- **Campral** (Acamprosate Calcium)

A prescription medication, usually taken 3 times daily, that helps reduce the cravings to drink alcohol. Campral is a non-addictive medication.

Opioid Dependence

- Frequently Abused Opioids:
  - Percocet
  - Vicodin
  - Methadone
  - Heroin
- All can be administered by mouth, snorted, or injected intravenously (IV)

Medications Used to Treat Alcohol Dependence (Cont.)

- **Revia** (Naltrexone)

A prescription medication that is used to reduce cravings for alcohol, and also reduces the pleasurable "buzz" obtained from alcohol. Naltrexone is a non-addictive medication.

Opioid Abuse in Massachusetts

- In the state of Massachusetts, in 2007, Opioid overdose was the **leading** cause of injury death. It was the third leading cause of death in general, only under heart disease and cancer.
- During the first two weeks after release from prison, the risk of dying from an accidental drug overdose is up to **50** times higher compared to the population as a whole.

Medications Used to Treat Alcohol Dependence (Cont.)

- **Vivitrol** (Long-Acting form of Naltrexone)

A prescription medication that is administered as a once-monthly injection. Used to reduce cravings for alcohol (and opioids), and also block the pleasurable "buzz" obtained from alcohol.

Opioid Addiction

- A medical condition caused by changes in the brain.
- Continued use actually changes the brain, worsening the addiction.
- It can take months or years for the brain to repair itself.

Medications Used to Treat Opioid Addiction
Methadone

- Medically monitored, long-acting synthetic narcotic used to stop cravings. Full –Agonist. Pill or liquid form.
- Obtained at the Methadone Clinic, often daily dosing with possibility of "take home" doses.
- If dose consistently remains reasonably low, the person can function normally and not feel "high"
- Choice treatment for opioid-addicted Pregnant women

Why Methadone and Suboxone are Different

- Prescribed and controlled by a doctor legally
- If prescribed correctly, will not make person "high"
- These medications assist with controlling cravings so that the person can concentrate on changing addiction behaviors

Medications Used to Treat Opioid Addiction
Suboxone (Buprenorphine)

- A prescribed medication that helps to reduce cravings and partially block the "high" of opioids. Partial-Agonist. Sub-lingual tablet or film form.
- Can be prescribed at a waivered doctor's office for home dosing
- Can cause "precipitated withdrawal" if taken too soon after an opioid

Medications Used to Treat Opioid Addiction
Revia (Naltrexone)
Vivitrol (Injectable long-acting Naltrexone)

- Non-addictive prescribed medication used to reduce cravings and block the drug's effects. Non-Narcotic.
- Must be detoxed BEFORE taking Naltrexone or will cause precipitated withdrawal
- Naltrexone comes in pill form or the injectable form, Vivitrol, that lasts for 30 days
- Also used to treat alcohol dependence

Methadone and Suboxone are addictive medications, isn't that just substituting one drug with another?

Interested in learning more about these receiving these treatments upon release?

Please write to the medical department

Thank you for your attention!

Questions?