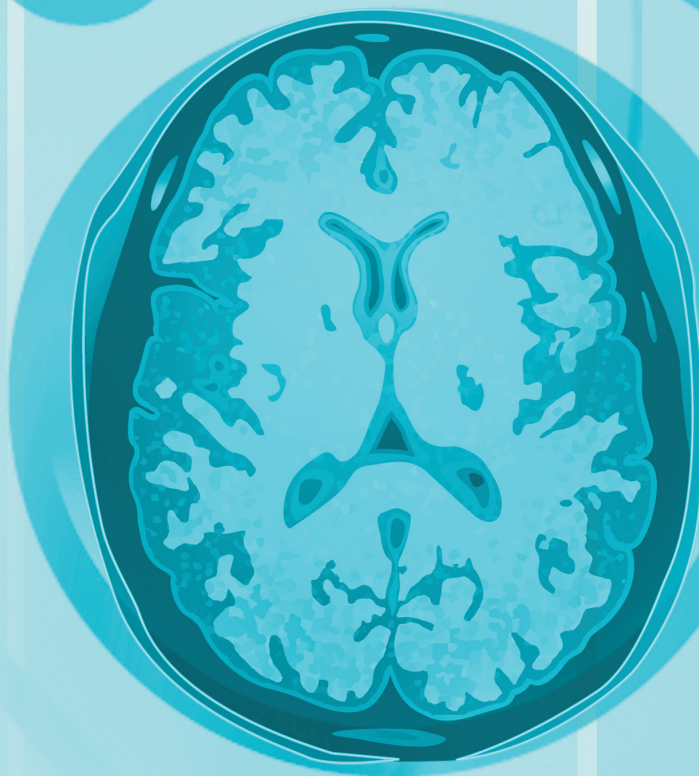


A COMPONENT OF NAADAC'S LIFE-LONG LEARNING SERIES

NEW INNOVATIONS IN OPIOID TREATMENT: BUPRENORPHINE

**Participant's
Reference Guide
and Workbook**



**NAADAC, the Association for Addiction
Professionals**

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**THE ASSOCIATION FOR
ADDICTION PROFESSIONALS**

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**NAADAC
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Life-Long Learning Series



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A SPECIAL THANK YOU

NAADAC, the Association for Addiction Professionals, understands the need for continuous education and strives to provide addiction-focused professionals the latest training to remain knowledgeable and pursue best practices for clients. The addiction profession is constantly changing to reflect new research and new understanding of the connection between the brain and addiction, and each year new medications and approaches to treatment are developed. As a result, the need to remain abreast of advancements in research and the profession grows increasingly important.

NAADAC is able to provide this educational seminar to you through an unrestricted educational grant awarded to NAADAC by Reckitt Benckiser Pharmaceuticals, Inc. This unrestricted educational grant afforded NAADAC the opportunity to unite opioid dependency experts across the United States and develop a seminar specifically tailored to addiction-focused professionals and the clients they serve.

Many writers and consultants volunteered their time and knowledge during the development of the training materials. NAADAC would like to extend its sincerest appreciation to the numerous contributors to this project: Keith Crawford, Tom Freese, Charles Hall, Diana Kamp, Donovan Kuehn, Shirley Beckett Mikell, Gerry Schmidt, Sima Stillings, Misti Storie and Cynthia Moreno Tuohy. I would also like to acknowledge the work of the Pacific Southwest Addiction Technology Transfer Center (PSATTC) for the invaluable background research they have provided in the development of this training program, as well as NAADAC's affiliates and the 13 other Addiction Technology Transfer Centers (ATTCs) that have worked with NAADAC in presenting this seminar.

NAADAC's Life-Long Learning Series New Innovations in Opioid Treatment: Buprenorphine is only one of many planned educational projects geared at providing comprehensive and unbiased education to the addiction profession. NAADAC recognizes you have a choice in education providers, and we are delighted you have chosen to take part in this educational seminar and build your toolbox of treatment resources. Thank you for your dedication to the addiction profession!

Together, we can and are making a difference!

Sincerely,

Patricia M. Greer, LCDC, AAC
President of NAADAC, the Association for Addiction Professionals



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EXECUTIVE SUMMARY

Opioid dependence afflicts almost two million people in the United States each year, with only approximately one half of dependent persons receiving any form of addiction treatment. Over the past few decades, researchers and scientists have developed several new medications to assist clients with opioid dependence. The most recent advancement is buprenorphine, which is approved by the Food and Drug Administration (FDA) for the treatment of opioid dependence. Buprenorphine works by alleviating uncomfortable opioid withdrawal symptoms and prohibiting any illicit opioids from producing their desired effect. Medication-assisted treatments for opioid dependence, such as buprenorphine, are only one component of treatment, and they can be extremely effective for some clients.

NAADAC's Life-Long Learning Series New Innovations in Opioid Treatment: Buprenorphine explores the role of medication-assisted treatments in the treatment of opioid dependence. Many addiction counselors and other helping professionals are uncomfortable with the notion of recommending a medication to treat a client's addiction to opioids. By providing useful, unbiased, scientific information concerning opioids and opioid dependence, this educational seminar is intended to help addiction counselors and other helping professionals understand the impact opioids have on the brain and what this means for subsequent treatment options.

When opioids are repeatedly consumed, the regulation of certain neurotransmitters in the brain is altered and results in opioid dependence. These adaptations in the brain impede many opioid dependent clients from discontinuing illicit opioids due to the onset of highly uncomfortable withdrawal symptoms. Medication-assisted treatments for opioid dependence, such as buprenorphine, allow clients to live their lives without illicit opioids and the related withdrawal symptoms. Research indicates that clients who utilize medication-assisted treatments for opioid dependence stay in treatment longer and consume less illicit opioids than their counterparts.

Medication-assisted treatments for opioid dependence, such as buprenorphine, are not ideal for all clients. It is the final decision of a specially certified and licensed physician whether or not to prescribe buprenorphine, but all members of the multidisciplinary addiction treatment team should contribute to this decision. In addition, opioid dependence treatment is most effective when it is holistic, coordinated and addresses the biological, psychological, social and spiritual components of this disease. Further, by utilizing techniques from Motivational Interviewing, integrating medication-assisted treatments for opioid dependence into a client's treatment plan can be extremely helpful for clients at any Stage of Change.



TRAINER BIOGRAPHIES



Shirley Beckett Mikell, NCAC II, SAP is the Director of Certification and Education for NAADAC, the Association for Addiction Professionals, and has worked in the addiction profession for over 30 years. She began as a counselor in Charleston, S.C., where she

also served as trainer, manager and mentor for fellow addiction professionals. Beckett Mikell has expertise in the areas of ethics, confidentiality, group and individual counseling skills and family interventions. Beckett Mikell has extensive training in the design of basic addictions treatment, working with DUI (driving under the influence) offenders and family counseling. She has managed opiate replacement facilities for Charleston County, S.C., and for the Colonial Management Group of Orlando, Fla. For Beckett Mikell has served on and chaired certification boards at the state and national level and she continues to advise programs in countries such as Cyprus, Egypt, South Korea and Iceland.

Disclosures: Beckett Mikell does not have any financial or professional relationships with any pharmaceutical companies.



Keith Crawford, PhD is a clinical pharmacist who conducts basic science research and clinical research in pharmacology. Dr. Crawford is an assistant professor in the department of pharmacology at Howard University College of Medicine and is currently serving as the principal investigator of the Howard Univer-

sity site of the Pennsylvania Mid-Atlantic AIDS Education and Training Center (AETC). He has an active research grant studying HIV pathogenesis. In 2008, Dr. Crawford will be a visiting scientist at Johns Hopkins University School of Medicine, Department of Clinical Pharmacology and will work with the Hopkins AIDS Clinical Trials Group (ACTG). Dr. Crawford has published research in pharmacology related to tumor biology, treatments for cancer and potential treatments for HIV disease. He received a B.S. degree in Biology from Cornell University, a B.S. in Pharmacy from Temple University and a Ph.D. in Pharmacology from the Uniformed Services University of the Health Sciences.

Disclosures: Crawford currently serves on the Speaker's Bureau for Monogram Biosciences and GlaxoSmithKline concerning HIV/AIDS medications.



Thomas Freese, PhD is currently the Co-Principal Investigator/Director of the Pacific Southwest Addiction Technology Transfer Center (PSATTC) in Los Angeles, California. Dr. Freese received his PhD in Clinical Psychology from the Cali-

fornia School of Professional Psychology in 1995. He has served as the Project Director on a number of studies including research on methamphetamine use, HIV risk in gay/bisexual men and smoking cessation interventions. Dr. Freese has worked in the substance abuse field since 1983. He has planned and implemented major Center for Substance Abuse Treatment (CSAT) and NIDA-funded conferences and directs all of the ISAP in-house trainings. He has provided training in 38 states for providers at all levels of training and education.

Disclosures: Freese does not have any financial or professional relationships with any pharmaceutical companies.



Cynthia Moreno Tuohy, NCAC II, CCDC III, SAP is the Executive Director of NAADAC, the Association of Addiction Professionals and has served at a variety of levels within the organization. She has previously served as the Executive Director of Danya Institute and

the Central East Addiction Technology Transfer Center and Program Director for Volunteers of America Western Washington. For over 20 years, Moreno Tuohy has trained nationally, internationally and at the state level in domestic violence/anger management and conflict resolution. Moreno Tuohy has written training components and manuals on treating adolescents, adults and seniors, school intervention, involuntary commitment, community mobilization, intensive outpatient and continuing care, impaired driver's programs, Employee Assistance Programs (EAP) and gang intervention/treatment programs. Moreno Tuohy holds a Bachelor's Degree in Social Work and is certified both nationally and in Washington State.

Disclosures: Moreno Tuohy does not have any financial or professional relationships with any pharmaceutical companies.



Gerard (Gerry) J. Schmidt, MA, LPC, MAC has been the Vice President and Chief Operations Officer at Valley HealthCare System since September 1980 and has been in the mental health and addictions treatment field for the past 35 years. Schmidt

has a variety of publications to his credit including several articles on the development of Employee Assistance Programs in rural areas, wellness in the workplace and has edited Treatment Improvement Protocols for the Center for Substance Abuse Treatment (CSAT). Schmidt is currently the Clinical Affairs Consultant for NAADAC, as well as the Chair of the Public Policy Committee and has been active in the coordination and delivery of the series of Practitioners Services Network (PSN) projects for NAADAC and CSAT. Schmidt is a licensed professional counselor (LPC) and certified as a Master Addiction Counselor (MAC) and as a licensed clinical supervisor (LCS).

Disclosures: Schmidt does not have any financial or professional relationships with any pharmaceutical companies.



Misti A. Storie, MS, is currently the Education and Training Consultant for NAADAC, the Association for Addiction Professionals. Storie is the Technical Writer for today's educational seminar NAADAC's Life-Long Learning Series New Innovations in Opioid Treatment: Buprenorphine, as well as

previous educational seminars entitled Pharmacotherapy: Integrating New Tools into Practice and Medication Management for Addiction Professionals: Campral Series that toured across the United States in 2006 and 2007. She has also primarily authored and edited The Basics of Addiction Counseling: Desk Reference and Study Guide, ninth edition and numerous articles concerning addiction-related issues for NAADAC News. Storie holds a Master of Science degree in Justice, Law and Society from American University and a Bachelor or Arts degree in Psychology from Emory University, with minors in Sociology and Violence Studies.

Disclosures: Storie does not have any financial or professional relationships with any pharmaceutical companies.



SEMINAR AGENDA

(schedule may vary according to region)

8:00am – 9:00am

Participant Registration and Continental Breakfast

9:00am – 10:00am

Introduction to Opioids and Opioid Dependence

10:00am – 10:45am

Psychopharmacology of Opioids

1

10:45am – 11:00am

Break

11:00am – 11:15am

Opioid Dependence Defined

11:15am – 12:15pm

Opioid Dependence Treatment

12:15pm – 1:15pm

Lunch

1:15pm – 2:15pm

Opioid Dependence Treatment (cont.)

2:15pm – 2:45pm

Identification of Clients for Buprenorphine Treatment

2:45pm – 3:20pm

Coordinated Care

3:20pm – 3:35pm

Break

3:35pm – 4:15pm

Counseling Buprenorphine Clients

4:15pm – 4:45pm

Program Review

4:45pm – 5:00pm

Complete Program Evaluations and Surveys



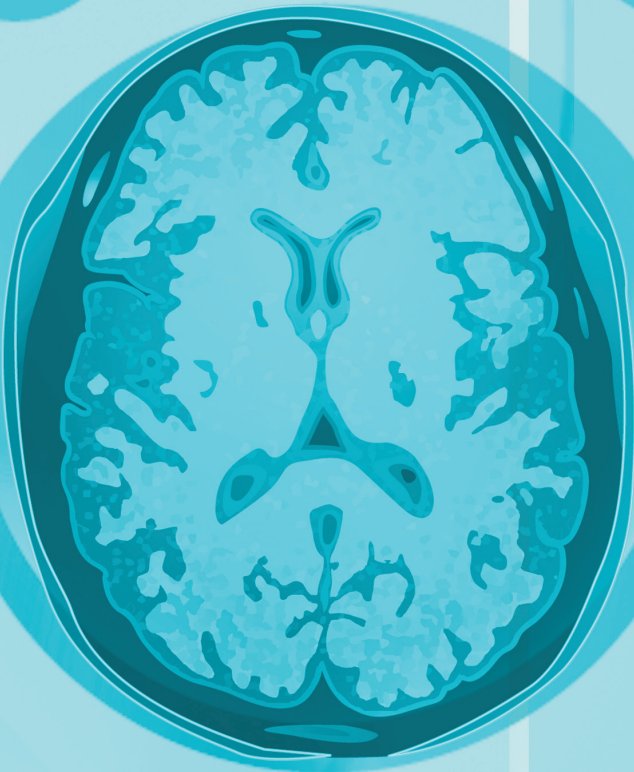
SEMINAR OBJECTIVES

- Explore common misperceptions and biases regarding medication-assisted treatments for opioid dependence.
- Learn the psychopharmacology of opioid dependence.
- Recognize the differences between the three FDA-approved medication-assisted treatments for opioid dependence.
- Identify at which Stage of treatment medication-assisted treatment for opioid dependence is effective.
- Discuss the clinical aspects of medication management in the treatment setting, including: client selection, adherence issues, treatment planning and ongoing assessment.
- Review and discuss case studies and strategies for ensuring successful client outcomes.
- Discuss methods to overcome treatment obstacles and matching clients to the most appropriate therapy.
- Translate information presented during the educational seminar to clients, families and colleagues.

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Introduction to Opioids and Opioid Dependence

Section 1



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This section provides an introduction to opiates and opioids: what they are, where they are used and who are using them. Opinions, myths and the history of medication-assisted treatment for opioid dependence are also discussed.



AN OPEN CONVERSATION ABOUT MEDICATION- ASSISTED TREATMENT FOR OPIOID DEPENDENCE

The purpose of today's educational seminar is to provide addiction and other helping professionals with useful, unbiased information concerning medication-assisted treatment for opioid dependence so clients are afforded the best available resources and options for their treatment. However, there are many strongly felt emotions held by addiction and other helping professionals toward medication-assisted treatment for opioid dependence. Many of these beliefs can unnecessarily limit the resources available to clients who suffer from opioid dependence and may not be factual. The intention of today's educational seminar is not to persuade opinions or disprove beliefs, but rather to educate and strengthen current knowledge of medication-assisted treatment for opioid dependence.



To best identify your feelings towards medication-assisted treatment, please divide into groups and answer each question on the white paper located at various points of the training room. Please be open and honest with your responses so your colleagues can learn from your opinion. When finished, please return to your seat and write each question posed to the group under each heading below. During the discussion portion of this exercise, please write down the responses of your colleagues and evaluate your opinion toward medication-assisted treatment for opioid dependence.

Question #1: _____

Responses from the group: _____

Question #2: _____

Responses from the group: _____

Question #3: _____

Responses from the group: _____

Question #4: _____

Responses from the group: _____

Question #5: _____

Responses from the group: _____

Question #6: _____

Responses from the group: _____



MEDICATION-ASSISTED TREATMENT MYTHS

As the previous section identified, addiction and other helping professionals have varying opinions and beliefs about medication-assisted treatment for opioid dependence. Some of the beliefs held by the profession are accurate, while, other opinions do not reflect current research, literature or current practice. This section will discuss some of the most commonly held misconceptions concerning opioid dependence and *pharmacotherapies*.

- Medications are not a part of treatment.
 - The three pharmacotherapies for opioid dependence that are approved by the Food and Drug Administration (FDA) should be used in conjunction with *psycho-social-educational-spiritual therapy*. Therefore, medications can be used as a part of treatment, but only one part.
 - Medications are used in the treatment of many *diseases*, including opioid dependence.
 - Making the final decision about whether or not medications are a part of a client's treatment is out of the counselor's *scope of practice*. Prescribers, doctors and any other appropriate professionals are tasked with this responsibility.
- Medications are drugs, and you cannot be clean if you are taking anything.
 - Addiction counselors and other helping professionals need to change their terminology to reflect current trends in the addiction profession. "Drugs" are illicit psychoactive substances that are used to achieve a "high." "Medications" are available by prescription and are used to treat an illness, disorder or disease. Buprenorphine is an example of a legally prescribed medication.
 - Millions of Americans use the patch, inhalers and/or bupropion (Zyban) to quit smoking, and this practice is widely encouraged by addiction professionals. However, *nicotine replacement therapies* work in the same way *opioid replacement therapies* work. These methods are pharmacotherapies and have gained broad social acceptance.

- Using medications to treat opioid dependence is replacing one addiction with another.
 - An addiction to opioids and a *physical dependence* to a medication used to prevent withdrawal symptoms are not the same thing. Addiction and physical dependence are different. Addiction is defined by the *pathological* behaviors and compulsivity of use, not by the body's adaptation to a medication. Physical dependence is only one criterion of many that are required for a *diagnosis* of opioid dependence (addiction).
 - The goal of addiction treatment is always to assist a client in stopping his or her compulsive use of drugs or alcohol and progress to living a normal, functional life. Medication-assisted treatment for opioid dependence can help some clients achieve this goal.ⁱ
 - Addiction to opioids creates a myriad of negative effects to the dependent client, his or her family and friends and society as a whole. Most of these devastating effects of opioid dependence are due to the illicit nature of the drug, debilitating side effects of constant use and the dependent's inability to perform normal functions in society, such as working and parenting. Removing negative effects of opioid use allows a client to live a normal life and contribute to society.
 - Medication-assisted treatment with opioid replacement medications can be highly effective for opioid dependent clients.ⁱⁱ
- Medications will get you high.
 - If appropriately administered, medication-assisted treatments for opioid dependence will not produce *euphoric* effects, but will help the person to feel normal.ⁱⁱⁱ While misuse is possible, behavioral treatments and ongoing support can help the client use the medication appropriately and achieve his or her goal.
 - *Buprenorphine* is specifically designed to decrease the street value and abuse *liability* exhibited by previous medications to treat opioid dependence. One version of buprenorphine has a mechanism that deters clients from administering it *intravenously* or else risking full-blown *withdrawal symptoms*.
- *Methadone*, buprenorphine and *naltrexone* occupy the same receptors in the brain as illicit opioids; therefore, these medications can block the euphoric effects of *exogenously administered opioids*.
- Medications are a crutch.
 - The single most accurate predictor of successful treatment outcome is the length of time in treatment.^{iv} Pharmacotherapies can help clients remain in treatment longer, continue to stay committed to meeting their treatment goals and maintain long-term sobriety.^v
 - The client can think more clearly without so many *physiological* distractions taking away from counseling objectives.
 - Pharmacotherapies are effective. Clinical data suggest that medication-assisted opioid dependence treatment can help clients reduce their illicit opioid use and stay in treatment.^{vi}
 - Anything can be a “crutch” in treatment – food, sex, work, shopping, smoking, another person, etc. For example, if an individual injures his or her leg, a crutch helps him or her protect the leg until it is strong enough to bear weight. Not all “crutches” are detractors from sobriety goals, and not all “crutches” are bad. A client needs some allowances to get them through each day in treatment, and any unhealthy “crutches” can be addressed therapeutically in treatment.
- Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) does not support the use of medications.
 - Contrary to popular belief, neither Alcoholics Anonymous (AA)/Narcotics Anonymous (NA) literature nor either of its founding members spoke or wrote against using medications as a component of a recovery plan for dependence. This belief was held by leaders of specific chapters and spread erroneously to be AA/NA doctrine.^{vii}
 - Even today, AA/NA does not endorse encouraging AA/NA participants to discontinue taking prescribed medications for the treatment of addiction.

- The Big Book, the primary reference tool written by the founders of AA, states, “God has abundantly supplied this world with fine doctors, psychologists, and practitioners of various kinds. Do not hesitate to take your health problems to such persons. Most of them give freely of themselves, that their fellows may enjoy sound minds and bodies. Try to remember that though God has wrought miracles among us, we should never belittle a good doctor or psychiatrist. Their services are often indispensable in treating a newcomer and in following his case afterward.”^{vii}
- 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.”^{ix}

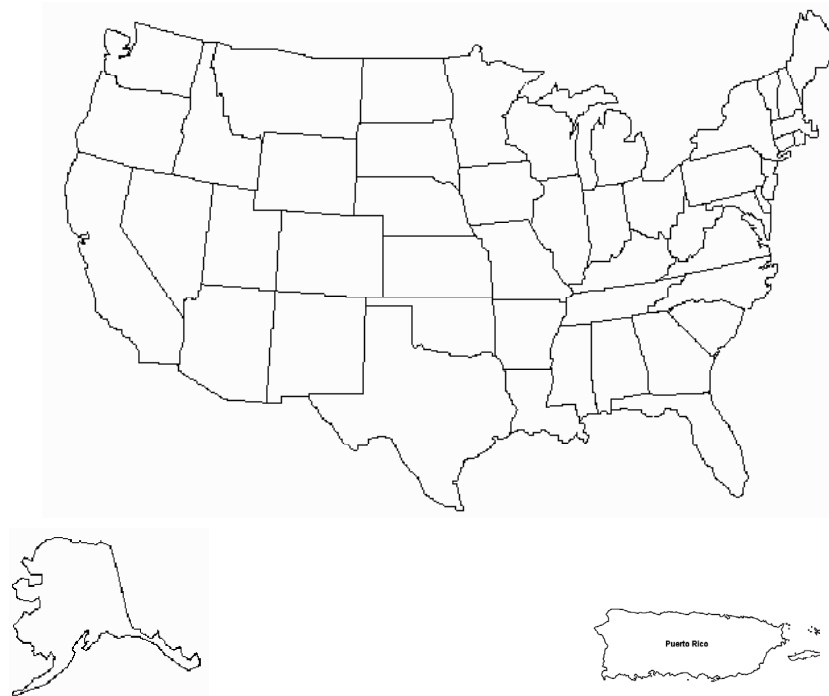


LOCATING OPIOID DEPENDENCE

Opioid dependence is not a regional problem that only plagues inner cities or rural communities. Opioids are being bought, sold, injected, snorted, swallowed, crushed and abused in all corners of this country, at all parts of the day. There are many different opioids of abuse circulating in the United States, and each region deals with its own unique problems. This next section will discuss the what, where and why of opioids and opioid dependence.



On the map below, please write the opioids you feel to be a problem in your region. If you know any information about other regions, please include it as well. This exercise illustrates the vast range of abuse that plagues the United States and what makes opioid dependence treatment so unique.



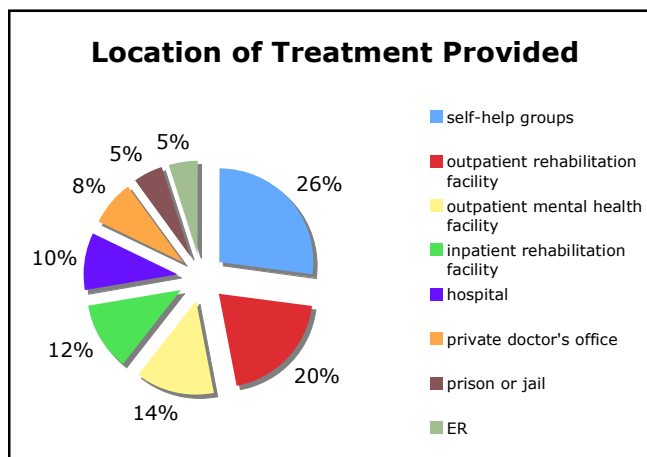


PREVALENCE OF OPIOID ABUSE, DEPENDENCE AND TREATMENT

Opioid dependence is not a problem that only plagues certain populations, occupations or age groups. This next section will discuss who is using, abusing and dependent on opioids.

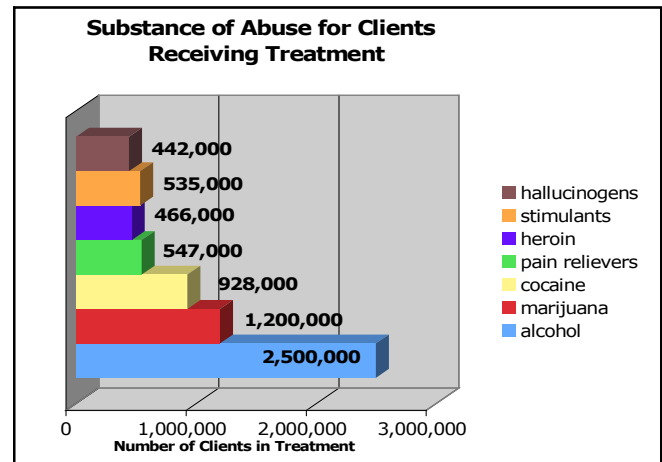
- In 2006, 22.6 million people aged 12 or older were either abusing or dependent upon one or more substances, which is 9.2% of the general population.
- Of those people, almost two million were abusing opioids.
 - 1,635,000 abused pain relievers.
 - 323,000 abused heroin.
- Each month, 300,000 people used heroin, and 5.2 million people used pain relievers, with 300,000 of those using *OxyContin*.
- In 2006, 91,000 people tried heroin for the first time.
- In 2006, approximately 2.1 million people tried pain relievers for the first time.
 - This equals 249 new heroin users and 5,890 new pain reliever users per day.^x

In 2006, four million people aged 12 or older received treatment for drugs or alcohol, which is 1.6% of the general population. The following chart illustrates the locations addiction treatment was provided to this population:^{xi}



Source: Substance Abuse and Mental Health Services Administration, 2007

In 2006, over one million people received treatment for opioids. The following chart illustrates the substance of abuse for which clients were receiving addiction treatment:^{xii}

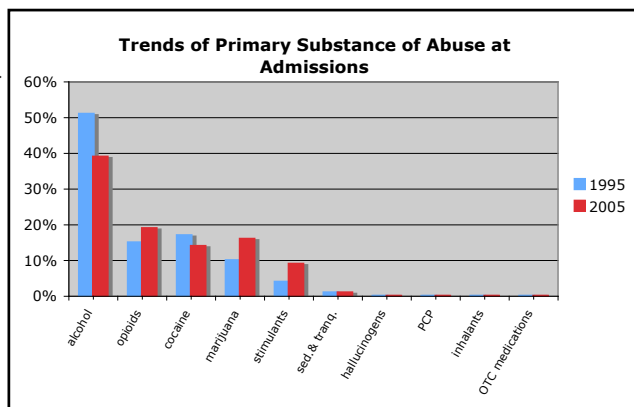


Source: Substance Abuse and Mental Health Services Administration, 2007

Ten percent of the entire abusing and dependent population (2.26 million people) state that they did not receive substance abuse treatment because it was inconvenient or no transportation was available.^{xiii}

Between the years of 1995 and 2005, the substance of abuse for clients receiving treatment shifted in many noteworthy ways.

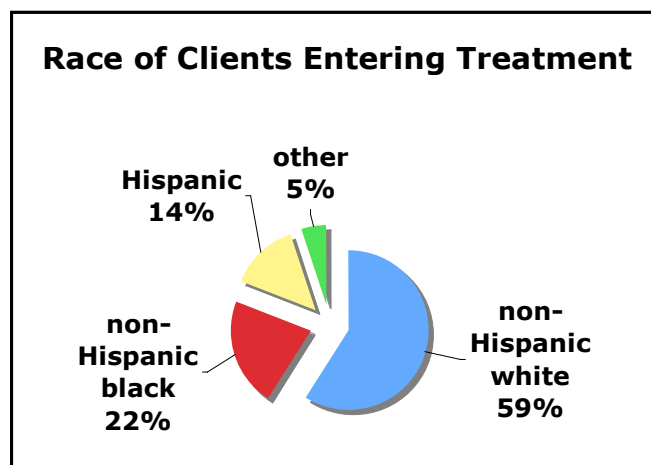
- Although alcohol remains the primary substance of dependence for clients receiving treatment, its dominance has decreased.
- Cocaine use has also decreased, whereas marijuana, *stimulants* and opioid use has increased.
- In 1995, heroin comprised 93% of all opioid-related treatment admissions; heroin comprised only 79% of all opioid-related treatment admissions in 2005.
- The following chart illustrates the primary substance of abuse for clients entering addiction treatment during 1995 and 2005:^{xv}



Source: Substance Abuse and Mental Health Services Administration, 2007

Of all people entering treatment in 2005, most clients were non-Hispanic whites, had a high school education or less and were unemployed or not in the labor force. ^{xvi}

- 71% of clients aged 16 or older who entered treatment in 2005 were unemployed or not in the labor force; 21% of clients were employed fulltime.
- 34% of clients aged 18 or older who entered treatment in 2005 had not completed high school; 22% of clients had above a high school education.
- The following chart illustrates the race of clients entering addiction treatment: ^{xvii}



Source: Substance Abuse and Mental Health Services Administration, 2007

Of heroin users who received treatment in 2005, 32% were non-Hispanic white males, 18% were non-Hispanic white females, 15% were non-Hispanic black males and 11% were of Puerto Rican origin. Of clients who were receiving treatment for opioid dependence other than heroin, 48% were non-Hispanic white males and 41% were non-Hispanic white females. ^{xviii}



IDENTIFYING OPIATES AND OPIOIDS

To understand the vast span of opioid use in the United States, it is essential to understand what these drugs are, what they look like, how they are classified and how they are abused. The following list of medications can be broken down into two categories: opiates and opioids.

Opiates are drugs or medications that are derived directly from the opium poppy. Opioid is a broader term referring to opiates, as well as other synthetically-derived drugs or medications that operate on the opioid receptor system. Most people use these terms interchangeably. For the purposes of this seminar, “opioids” will be used to indicate all drugs or medications that work on the opioid receptor system, regardless of whether they are derived from the opium poppy or synthetically manufactured.

As a side note, the opioid/opiate debate is not the only terminology associated with opioid dependence that needs to be defined. Many people use terms like “speedballing,” “kicking” and “fix” to describe the many facets of opioid dependence, but not everyone knows what these terms mean. Appendix A: Commonly Used Terms in this manual defines many “street slang” terms regarding opioids, opioid dependence and use.

Regardless of the type of opioid, naturally occurring or synthetic, each opioid works basically in the same way in the brain and body and can be divided further into three groups: agonists, partial agonists and antagonists. Each of these categories will be discussed separately.

Agonists activate opioid receptors and cause the physiological and psychological effects most commonly associated with opioid use. The following effects increase until the receptor is fully activated and a maximum effect is reached:

- | | |
|--------------------------|---|
| ■ pain relief | ■ warm flushing of skin, face, neck and chest |
| ■ euphoria | ■ constricted, pinpoint pupils |
| ■ bobbing head (nodding) | ■ suppression of cough |

- reduction of respiratory functions
- decrease in blood pressure
- drowsiness
- slurred speech
- constipation
- nausea
- sedation
- vomiting
- itching
- inability to urinate
- mental clouding
- impaired judgment
- decreased anxiety
- lowered libido
- dry mouth

Most opioids fall into the agonist category. These opioids are usually administered through intravenous injection, smoking, snorting or orally in pill form. The duration of effects can last anywhere from three to six hours for codeine and 12 to 36 hours for methadone, which is why opioids are often referred to as short-acting opioids and long-acting opioids. Agonist opioids include:

- Opium - a naturally occurring short-acting opioid that is also commonly known as Laudanum, Panton or Paregoric.



Morphine - a naturally occurring short-acting opioid that is also commonly known as Roxanol. MS Contin is a morphine extended-release product and is therefore, long-acting.

- Codeine - a naturally occurring short-acting opioid that is also commonly included in Tylenol #3 or Empirin.

- Diacetylmorphine - a synthetically manufactured short-acting opioid that is also commonly known as heroin.



- Hydromorphone - a synthetically manufactured short-acting opioid that is also commonly known as Dilaudid.



- Oxycodone - a synthetically manufactured short-acting opioid that is contained in OxyContin, Percodan, Percocet or Tylox.



- Hydrocodone - a synthetically manufactured short-acting opioid that is contained in Vicodin or Lortab.



- Propoxyphene - a synthetically manufactured short-acting opioid that is contained in Darvon or Darvocet-N.



- Meperidine - a synthetically manufactured short-acting opioid that is also commonly known as Demerol or Mepergan.
- Methylfentanyl - a synthetically manufactured short-acting opioid that is also commonly known as Fentanyl or White China.
- Methadone - a synthetically manufactured long-acting opioid also sold as Dolophine or Methadose.
- Levo-alphaacetylmethadol - a synthetically manufactured long-acting opioid that is commonly known as ORLAAM or LAAM.

Partial opioid agonists share some characteristics of agonists in the sense that they activate opioid receptors and cause the physiological and psychological effects most commonly associated with opioid use. At low doses, partial and full agonists resemble one another; however, at high doses, partial agonists do not produce as great an effect as full agonists. This phenomenon is known as the ceiling effect. Partial agonist opioids include:

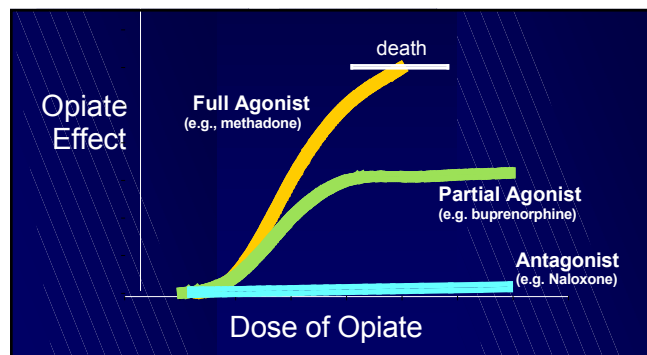
- Buprenorphine – a synthetically manufactured long-acting opioid that is also commonly known as Buprenex, Subutex or Suboxone.
- Pentazocine – a synthetically manufactured short-acting opioid that is also commonly known as Talwin.

Opioid antagonists also work by binding to opioid receptors, but they do not activate them like full or partial opioid agonists. Antagonists do not cause any psychoactive effects, such as euphoria, but instead, antagonists occupy the receptors and block the effects of competing agonists. Opioid antagonist include:

- Naloxone – a synthetically manufactured short-acting opioid antagonist that is also commonly known as Narcan.
- Naltrexone – a synthetically manufactured long-acting opioid antagonist that is also commonly known as ReVia or Depade.

Neither of these medications are derivatives of the opium poppy, but they are designed to mimic the chemicals that bind to the opioid receptors. Both of these medications are used as treatments for opioid dependence, which is why they are discussed in this section. The following diagram illustrates the differing effects of full opioid agonists, partial opioid agonists and opioid antagonists:^{xxv}

Effects of Opioids



Source: NIDA/SAMHSA-ATTC Blending Initiative, 2005



HISTORY OF OPIOID USE AND TREATMENT

The opium poppy (*Papaver somniferum*) has been known for its medicinal qualities since pre-historic times. Its literal translation from Latin means “plant of joy,” which illustrates that the side effects of exhilaration and elation were just as apparent as its healing properties. While it is unknown who first cultivated the plant solely for the purpose of its narcotic properties, there are many references to the plant and its euphoric effects throughout historical texts. However, it can be assumed that recreational use of opioids began with the steady cultivation of opium plants, and that opioid abuse soon followed.

Whether as the catalyst for war or a tool for financial dominance, opium has always had a role in history. Its healing properties have been passed down through the ages, refined, perfected, copied and altered to be a better product, and it has saved countless people from pain and illness. At the same time, it has brought much suffering to every corner of the world in the form of addiction. By briefly looking at the path of opium distribution, it is clear that no civilization, era or global power has been immune from the devastating effects of opium and its derivatives.



As we progress through the history of time, a predictable pattern of opioid abuse and dependence is identifiable. For each region, pay close attention to the year opium is introduced, when it became a problem and when effective treatment for opioid dependence became available.

3400 B.C. – The opium poppy is cultivated in Sumer in lower Mesopotamia (often regarded as the world’s earliest civilization). Opium was then spread to the Assyrians, Babylonians and Egyptians. As empires rose and fell, they taught the conquered lands about the wonders of the “plant of joy.”

1300 B.C. – Egyptian pharaohs spread opium through trade with Greece, Carthage and Europe.

460 B.C. – Hippocrates, an ancient Greek physician, proclaims opium to be useful for treating internal diseases, diseases of women and epidemics.

330 B.C. – Alexander the Great introduces opium to Persia and India.

400 – Opium is first introduced to China and takes hold very quickly.

1200 – East Indian doctors treat diarrhea and sexual dysfunction with opium.

1300 – Europe views anything from the East as heretical; due to its side effects, opium is associated with ideas of witchcraft and magic, and any mention of it disappears from historical records for 200 years.

1500 – Smoking opium is first introduced by the Portuguese.

1527 – Alchemist Paracelsus reintroduced opium to Europe through the painkiller laudanum, which was primarily made by extracting opium into brandy.

1601 – Queen Elizabeth I charts ships to purchase the finest opium from India.

1700 – The Dutch introduce the practice of smoking opium through a tobacco pipe, and it quickly becomes the most popular method of administration, especially in China.

1729 – China prohibits the sale and smoking of opium in China, unless it is used as a medicine.

1750 – England has become the largest trader of opium.

1799 – China bans the consumption, sale or production of opium completely.

1800 – Massive amounts of opium are being imported to the United States via British ships.

1803 – German scientist, Friedrich Serturner, discovers the active ingredient in opium: morphine. Morphine is thought to be tamer than opium and “God’s own medicine.”

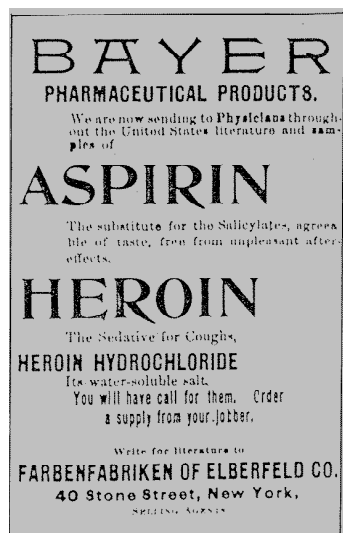
1827 – German pharmaceutical company, E. Merck & Company, begins manufacturing morphine.

1832 – Codeine is developed.

1839 – China seizes all the opium in possession of all foreign traders. In response, the First Opium War begins by England sending warships to China. China loses the First Opium War and must pay a large indemnity, as well as surrender Hong Kong to England.

1843 – Injecting morphine with a *hypodermic syringe* is first introduced.

- 1856 – The Second Opium War is fought against China by England and France. China is forced to pay another large indemnity and legalize opium.
- 1860s – Morphine is used to treat injured soldiers during the Civil War. So many soldiers became addicted to morphine that it became known as the “Soldier’s Disease.”
- 1874 – Heroin is discovered by English researcher, C.R. Wright.
- 1874 – San Francisco bans smoking opium in the city limits, but it is still legal in neighboring Chinatowns.
- 1878 – Britain passes the Opium Act in hopes of reducing opioid consumption.
- 1890 – The United States imposes a tax on opium and morphine.
- 1898 – Heroin is first sold by a German pharmaceutical company, The Bayer Company, as a cough suppressant. Heroin is used to treat many ailments, including opioid dependence.^{xxvii}
- Early 1900s – The use of laudanum is acceptable in the United States, whereas opioid smokers are considered drug users. Chinese immigrants are discriminated against and automatically considered addicts.
- 1902 – Medical journals discuss the similarities between heroin withdrawal symptoms and morphine withdrawal symptoms.
- 1905 – The United States Congress bans opium.
- 1906 – Heroin dependence is treated with belladonna.
- 1906 – The United States Congress passes the Pure Food and Drug Act requiring companies to label the contents of their products. As a result, the consumption of opioids declined.
- 1909 – The first International Opium Conference is held in Shanghai.
- 1914 – The United States passes the Harrison Narcotics Act, which required prescribers of opioids to register and pay a tax. This law is interpreted



- as banning prescriptions of opioids to opioid dependents. Prescribers who continued to supply opioids to this population are legally punished or ran out of business.
- 1919 – Two cases involving the decision of a doctor to prescribe and a pharmacist to fill a prescription for opioids to known opioid dependent are brought before the U.S. Supreme Court. Since addiction is not viewed as a disease at this time, and the opioid dependents did not suffer from any medical ailments except for opioid withdrawal symptoms, both rulings upheld the Harrison Narcotics Act.
- 1924 – The United States bans any non-medical use of opioids.
- 1920s – Asylums and hospitals overflow with opioid dependents in withdrawal. An opioid black market thrives in New York City.
- 1950s – The United States government attempts to contain communism in China and forges alliances with drug warlords in the area known as the Golden Triangle (encompassing the nations of Laos, Thailand and Burma). The U.S. and French governments supply the Golden Triangle with ammunition, weapons and air transportation for the sale of opium. As a result, massive amounts of heroin are supplied to and sold in the United States.
- 1964 – Methadone is approved by the Food and Drug Administration (FDA) for the treatment of opioid dependence. This is the first medical intervention approved for the treatment of opioid dependence.
- 1960 - 1975 – The U.S. involvement in the Vietnam War produced an influx in heroin available in the United States, as well as a new generation of heroin dependents returning from war.
- 1970 – The Federal Controlled Substance Act of 1970 classified heroin as a Schedule I drug, stating that it has no accepted medical uses. Most other opioids are classified as Schedule II drugs, which permits usage only with a medical prescription.
- 1972 – The opioid receptor is discovered in the brain.
- 1974 – The Narcotic Treatment Act limits methadone treatment to specifically licensed Opioid Treatment Programs (OTP).

- 1975 – Scottish neuroscientists John Hughes and Hans Kosterlitz discovered the first two *neurotransmitters* that activate opioid receptors. These neurotransmitters are called *endorphins*, which mean “morphine in the head.”
- 1970s – “Mexican Mud,” a.k.a “Black Tar,” heroin is supplied to the United States by Mexico until the poppy fields were destroyed by Agent Orange.
- 1978 – The “Golden Crescent,” encompassing Iran, Afghanistan and Pakistan, emerges as a major distributor of heroin.
- 1984 – Naltrexone is approved by the FDA for the treatment of opioid dependence.
- 1993 – Levomethadyl acetate (LAAM) is approved by the FDA for the treatment of opioid dependence.
- 1995 – OxyContin is first produced and distributed.
- 2000 – The Taliban in Afghanistan bans the cultivation of the opium poppy.
- 2000 – *The Drug Addiction Treatment Act of 2000 (DATA 2000)* is passed and expands the clinical context of medication-assisted treatment for opioid dependence. We will discuss the importance of this in detail later in this section.
- 2001 – The “War on Terror” targets Afghanistan, and the Taliban is overthrown. Heroin floods into Pakistan and is distributed around the world.
- 2002 – Buprenorphine (both Subutex and Suboxone) is approved by the FDA for the treatment of opioid dependence.
- 2004 – LAAM is discontinued for the treatment of opioid dependence.
- 2007 – Afghanistan now produces 95% of the world’s supply of heroin.
- 2008 – Studies and treatments for opioid dependence continue to progress.

As history has demonstrated, opioid dependence was and continues to be a large and growing problem across the globe. At the same time, new and more effective methods of treating opioid dependence are constantly evolving. Advanced therapies and pharmacological interventions have emerged in recent decades to assist in allowing the dependent client to live a happy, fully functioning life, without the consumption of illicit opioids.



THE DRUG ADDICTION TREATMENT ACT OF 2000 (DATA 2000)

The enactment of the Drug Addiction Treatment Act of 2000 (DATA 2000) made receiving medication-assisted treatment for opioid dependence exponentially easier and more readily available to the clients who need it. Concisely, DATA 2000 amended the Controlled Substances Act and permits qualified physicians to prescribe certain opioid treatment medications from their office setting. Prior to this law, all pharmacological opioid treatments could only be administered in a licensed opioid treatment program (OTP). Below is some information regarding DATA 2000:

- Currently, only buprenorphine falls under the parameters of DATA 2000.
- DATA 2000 only applies to medications classified by the Drug Enforcement Agency (DEA) as Schedule III, IV or V, which is based on the dangerousness and potential for abuse of the substance.
- Buprenorphine is classified as Schedule III, whereas methadone is classified as Schedule II.
- Buprenorphine is considered a safer medication with lower potential for abuse than methadone.

DATA 2000 is extremely helpful to addiction treatment for three reasons:

- 1.) It allows for medication-assisted treatment for opioid dependence in a medical office in addition to a licensed OTP. This change allows for persons who may not have access to an OTP to receive opioid treatment from his or her physician. This benefits people in rural communities, people with non-traditional work or family situations or those who face other barriers that would otherwise prevent them from receiving opioid dependence treatment.
- 2.) It expands medication-assisted treatment for opioid dependence slots. Since only OTPs were allowed to administer methadone prior to DATA 2000, there were only so many slots in these OTPs available to the entire opioid dependent population. Now, physicians are able to treat more people, vastly expanding the breadth of opioid dependence treatment.

3.) It creates baseline qualifications for prescribing the medication. These include:

- The prescriber must be a physician licensed in his or her state to practice medicine. Nurse practitioners and physician assistants may not prescribe buprenorphine.
- The physician must have the capacity to refer clients for bio-psycho-social-spiritual treatment. “Having the capacity” to refer to bio-psycho-social-spiritual treatment does not mean physicians must refer their clients to bio-psycho-social-spiritual treatment. It simply means that they must be knowledgeable of how to refer clients. It is imperative for addiction and other helping professionals to develop working relationships with approved physicians since the law does not mandate the inclusion of bio-psycho-social-spiritual therapy.
- The physician can only prescribe buprenorphine to 30 clients at any given time during the first year of prescribing and to 100 clients at any given time for subsequent years. This restriction applies to not only a single physician, but also a group practice working together. However, this restriction does not apply to OTPs that prescribe buprenorphine, but they must follow the same regulations established for methadone.
- The physician must be properly trained in assessing clients’ eligibility for buprenorphine or otherwise qualified, which is determined by meeting one of the following qualifications:
 - being board certified in Addiction Psychiatry;
 - having American Society of Addiction Medicine (ASAM) or American Osteopathic Association (AOA) certification in Addiction Medicine;
 - having served as an Investigator in a buprenorphine clinical trial;
 - completing eight hours of training by ASAM, AOA, the American Academy of Addiction Psychiatry (AAAP), the American Medical Association (AMA), the American Psychiatric Association (APA) or other organizations that may be designated by the federal Department of Health and Human Services (HHS);
 - receiving training or experience as determined by a state medical licensing board; or
 - fulfilling other criteria established through regulation by the federal Department of Health and Human Services (HHS).
- Physicians must complete a waiver notification form and submit it to the Substance Abuse and Mental Health Services Administration (SAMHSA)/ Center for Substance Abuse Treatment (CSAT).

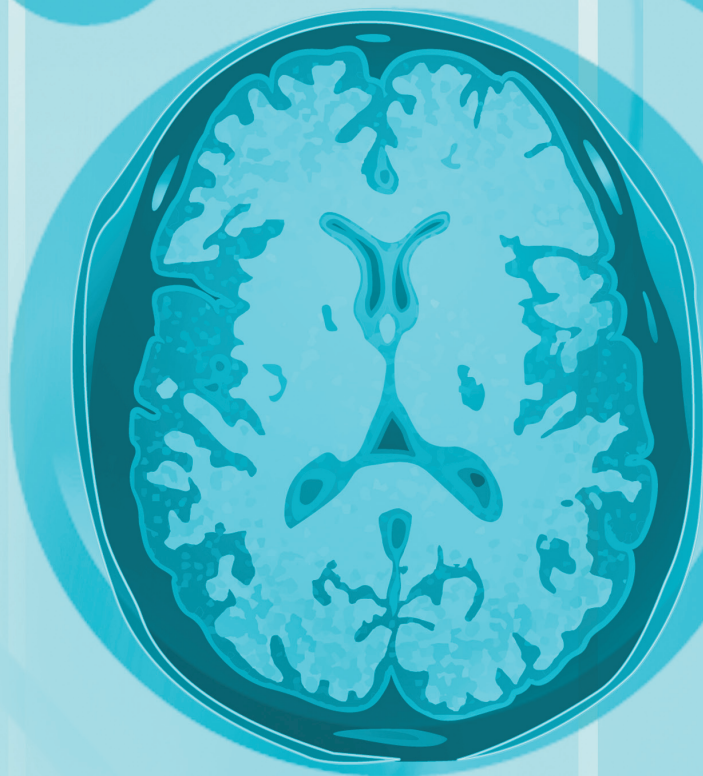
If CSAT approves the waiver, a unique license number is issued and added to the physician’s existing Drug Enforcement Administration (DEA) license number. This physician is now able to prescribe buprenorphine to opioid dependent clients.

Summary: Millions of Americans abuse many different types of opioids across the United States each year. Medication-assisted treatment for opioid dependence is an important component of their recovery and can help clients achieve healthy, functioning lives.

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Psycho-Pharmacology of Opioids

Section 2



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This section explains the basic roles of the central nervous system, neurons and applicable neurotransmitters in the development of opioid dependence and withdrawal.



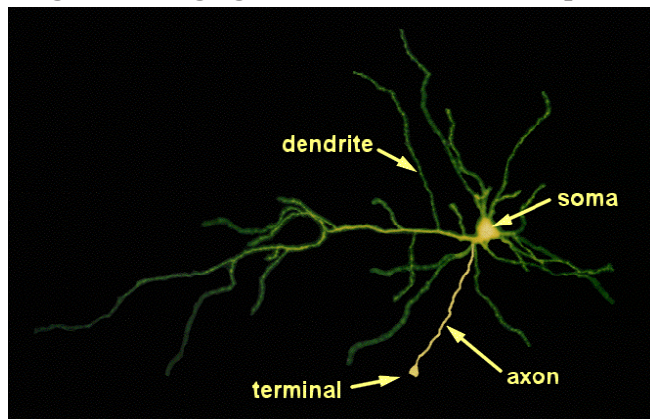
BASIC BRAIN FUNCTIONING 101

To understand how opioids affect the brain, one needs to review basic brain functioning. Psychoactive chemicals mostly affect the central nervous system, which consists of the brain and spinal cord. The central nervous system is primarily responsible for:

- thinking, learning and judgment
- emotions (happiness, paranoia, anger, anxiety, fear, love)
- voluntary movements (walking, running, reaching, sitting)
- sensory inputs (smelling, tasting, hearing, feeling)

To ensure the human body responds appropriately to the outside world, the brain manages itself by rapidly sending chemical signals or messages to billions of neurons that are located throughout the human body. These messages are relayed via neurotransmitters and instruct the neuron to take action. Neurons can either be activated or suppressed naturally by neurotransmitters or artificially through the introduction of drugs or medications.

Magnified Imaging of a Neuron and Its Compounds

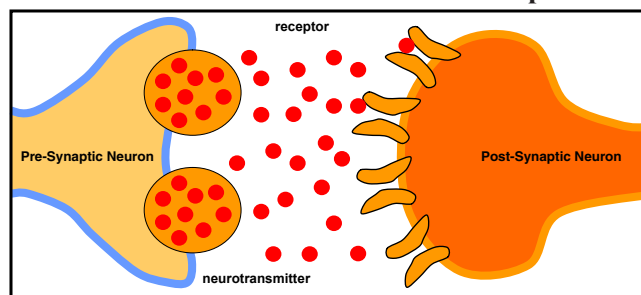


Neurons are commonly referred to as the building blocks of the entire nervous system, and each has its own shape, size and function specific to the type of chemical signals (neurotransmitters) it can receive. Above is a magnified picture of an actual neuron and all of its components.^{xxix}

Generally speaking, when a neurotransmitter reaches an appropriate neuron, it binds to its receptors and activates the neuron. However, binding works on a “lock and key” mechanism, with the receptor as the lock and the neurotransmitter as the key. Not all neurotransmitters can bind to all receptors, much like not all keys fit into all locks.

As discussed earlier, agonists activate the opioid receptors. This is comparable to a key that fits into a lock, turns it and opens the door all the way. Whereas, partial agonists can fit the lock and turn, but the door only opens half way. Antagonists are similar to agonists in that they bind to the receptor but, unlike agonists, they do not activate it. Antagonists are similar to a key that fits into the lock but is not able to unlock it. Instead, it simply sits in the lock and prevents any other key from unlocking the door and activating the receptor. The following illustration visually shows how a neurotransmitter is released from the pre-synaptic neuron and binds to a receptor on the post-synaptic neuron.^{xxx}

Neurotransmitter Release and Absorption



Source: Pharmacotherapy: Integrating New Tools into Practice, 2007

There are three main neurotransmitters relevant to this discussion of opioid consumption and dependence:

- dopamine – regulates motivation and pleasure; most addictive psychoactive chemicals increase dopamine, as do eating, gambling and sex
- endogenous opioids – produces euphoria and is a naturally occurring pain reducer that are naturally increased when one feels pain or experiences pleasure
- noradrenaline – also known as norepinephrine, contributes to the “fight or flight response,” stimulates wakefulness, breathing, blood pressure and alertness

The following illustrations demonstrate the primary function of each neurotransmitter as we discuss the effects they have on the brain when opioids are consumed.



dopamine –
because it makes
you happy



endogenous opioids –
because they make you
euphoric and feel no pain



noradrenaline –
because it wakes
you up



EFFECTS OF OPIOID CONSUMPTION IN THE BRAIN

Understanding how opioids affect the brain and lead to opioid dependence has afforded researchers the opportunity to address opioid dependence from a biological perspective and develop pharmacotherapies to aid in treatment. Comprehending the role of the brain in addiction allows addiction counselors and other helping professionals to better assist clients and provide appropriate treatment interventions to address this important interaction.

When opioids are consumed, there are two main neuronal activities that take place in the brain simultaneously - there are others, but we will only discuss these two for our purposes. These changes or adaptations in the brain occur regardless of whether a person is taking medication for pain relief or injecting heroin on the streets. Please pay close attention to the following explanation, as it will help you understand how pharmacotherapies work in the brains of opioid dependent clients.

The first main neuronal activity is as follows:

- 1.) Opioids are ingested.
- 2.) Opioids bind to opioid receptors.
- 3.) Neurons located in the area of the brain called the locus ceruleus (LC) are suppressed and unable to release noradrenaline to various parts of the brain.

If noradrenaline is suppressed when opioids are consumed, what physiological effects would you expect an opioid user to experience?



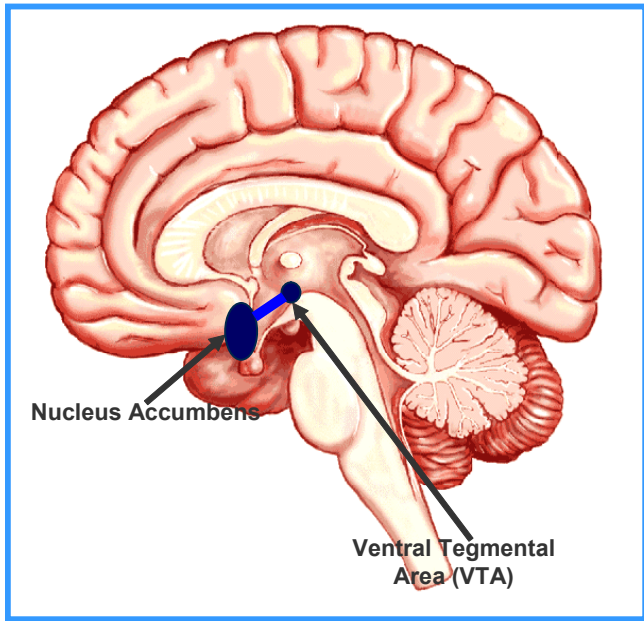
- ☐ drowsiness
- ☐ slowed breathing
- ☐ low blood pressure

The second main neuronal activity is as follows:

- 1.) Opioids are ingested.
- 2.) Opioids bind to the opioid receptors.
- 3.) The increase in opioid stimulation activates two areas of the brain called the ventral tegmental area (VTA) and the nucleus accumbens, resulting in the release of dopamine.^{xxxii}

- 4.) Since dopamine is a main reward neurotransmitter, increases in the nucleus accumbens makes the opioid user feel happier.
- 5.) The brain remembers those good feelings caused by increased dopamine and opioid activity.
- 6.) The brain of the opioid user desires to repeat the behavior again to get the same good feelings.
- 7.) The cycle of opioid dependence begins or ends, depending upon the frequency of consumption.

Neuronal Activity



OPIOID DEPENDENCE

In the absence of drugs, the human brain carefully coordinates the activity of all the billions of neurons throughout the body. When the brain is exposed to external substances, such as opioids, the brain is overridden and functioning is altered. Typically, when a person does not chronically abuse opioids, the brain is able to return to normal levels of functioning after the opioids have been detoxified from the body.

When a person repeatedly consumes opioids, the brain is in a constant state of imbalance. The brain naturally seeks to always function in a state of *equilibrium*, called *homeostasis*, and it will work to restore the balance in spite of the presence of opioids. Opioid dependence is established when the brain adapts to the constant presence of opioids.

- 1.) Since the neurons located in the locus ceruleus (LC) are constantly being suppressed and unable to distribute noradrenaline, they adjust by increasing their level of activity in an effort to regain homeostasis.
- 2.) Roughly normal amounts of noradrenaline can now be distributed throughout the body, and the opioid dependent feels more or less like normal.



What physiological effects would you expect to see from an opioid dependent client who stops consuming opioids and now has an influx of noradrenaline?

- ☐ jitters
- ☐ anxiety
- ☐ muscle cramps
- ☐ diarrhea

- 3.) Also, the opioid receptors gradually become less responsive to opioids because of the constant over-activity. This means that the same amount of opioids no longer produces the same level of stimulation. This adaptation is called *tolerance*.
- 4.) Since the opioid receptors are not as responsive to opioids as they used to be, the VTA and nucleus accumbens are not being activated with the same intensity.
- 5.) As a result, not as much dopamine is released.
- 6.) The opioid dependent person does not feel the same level of pleasure as previously experienced.
- 7.) Often, the dependent will consume a greater amount of opioids in an effort to achieve the same level of “high” as previously experienced before the onset of tolerance. This phenomenon is commonly referred to by opioid dependents as “chasing the high.”

Note: Opioids produce *cross-tolerance*, meaning that once tolerance develops for one opioid, the opioid dependent will experience tolerance to all opioids. This occurrence is important to remember given that legitimately prescribed pain medications, as well as medication-assisted treatments for opioid dependence, will need to be adjusted appropriately to compensate for the dependent’s level of tolerance.

OPIOID WITHDRAWAL

When opioid dependent clients stop consuming opioids, the brain is once again forced to experience an imbalance.

- 1.) When opioids are not present, neurons located in the locus ceruleus (LC) are free to behave normally.
- 2.) This causes the amount of noradrenaline released and distributed throughout the body to increase dramatically.
- 3.) The opioid dependent experiences withdrawal symptoms.

The intensity of opioid withdrawal symptoms will depend on the type, amount and frequency of opioid consumed, as well as the duration of abuse. Withdrawal symptoms are basically a resurfacing of functions that have been suppressed or altered by opioid consumption. Even though opioid withdrawal symptoms are incredibly uncomfortable, they are not life threatening for individuals who are otherwise generally healthy. Opioid withdrawal symptoms are experienced in two phases: *acute opioid withdrawal* and *protracted opioid withdrawal*. The signs and symptoms of each phase are discussed below.

Acute opioid withdrawal symptoms are the opposite of acute intoxication symptoms, including:

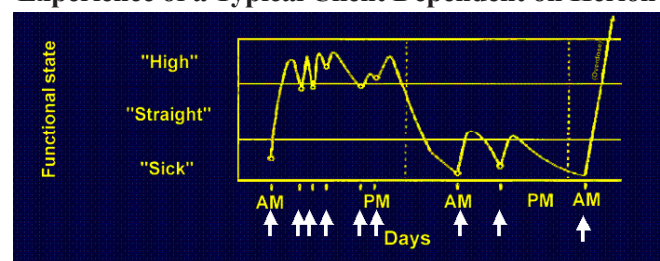
- | | |
|-----------------------------|--------------------|
| ■ anxiety | ■ insomnia |
| ■ chills | ■ irritability |
| ■ craving | ■ loss of appetite |
| ■ diarrhea | ■ muscular spasms |
| ■ dilated pupils | ■ rapid heart rate |
| ■ dizziness | ■ runny nose |
| ■ exaggerated pain response | ■ stomach cramps |
| ■ extreme fatigue | ■ sweating |
| ■ fever | ■ vomiting |
| ■ <i>gooseflesh</i> | ■ watery eyes |
| ■ headache | ■ yawning |
| ■ increased blood pressure | |

Most opioid dependents consume their next dose of an opioid when half of the last dose has been removed from the body, known as *half-life*. The length of time an opioid dependent client experiences acute withdrawal symptoms depends on the half-life of the opioid last consumed. If the brain is accustomed to the constant presence of opioids, more opioids must be consumed at this time to avoid withdrawal symptoms. Opioids with short half-lives have acute withdrawal symptoms for shorter periods of time; whereas, opioids with long half-lives have acute withdrawal symptoms for longer periods of time. Below are the half-lives of some commonly used opioids:

- heroin – three to four hours
- codeine – 2.5 to three hours
- morphine – two hours
- hydromorphone – 2.6 hours
- oxycodone – 3.51 hours
- hydrocodone – 3.8 hours^{xxxiii}

A typical opioid dependent who injects heroin several times a day is always fluctuating between being “high” on opioids and being “sick” from acute opioid withdrawal symptoms. This occurs because heroin has a relatively short time in the blood stream before it is broken down by liver enzymes. The following diagram^{xxxiv} shows the experience of a typical client dependent on heroin:

Experience of a Typical Client Dependent on Heroin



Source: Dole, V.P., Nysweider, M.E., and M.J. Kreek, 1966.

Protracted opioid withdrawal symptoms are generally less severe than acute withdrawal symptoms, but they can still be very uncomfortable. Symptoms can include:

- | | |
|------------------------------|-------------------------------|
| ■ craving | ■ <i>impotence</i> |
| ■ decreased blood pressure | ■ inability to have an orgasm |
| ■ decreased body temperature | ■ insomnia |
| ■ decreased heart rate | ■ overall lack of pleasure |
| ■ deep muscle aches | ■ poor appetite |
| ■ depressed mood | ■ reduced libido |

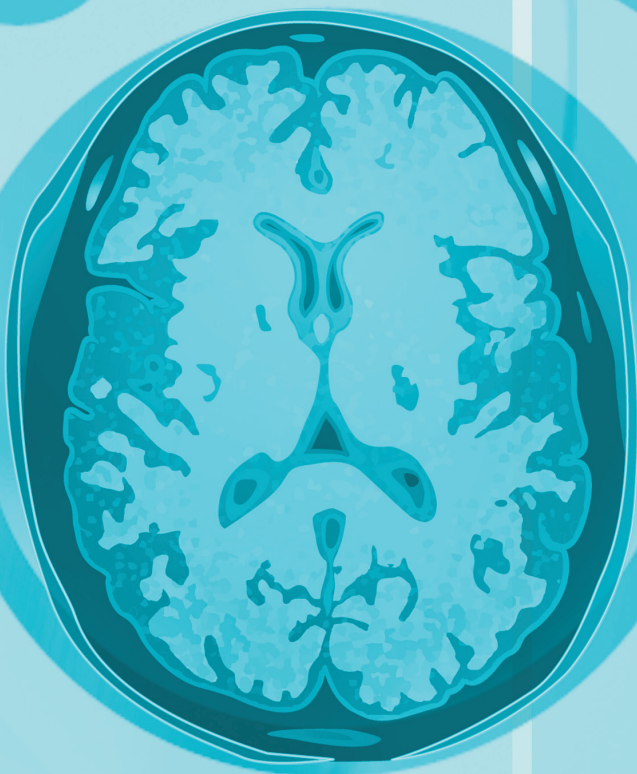
Regardless of the length of the time acute withdrawal symptoms persist, protracted withdrawal symptoms occur for weeks or months after the last opioid is consumed.

Summary: When opioids are repeatedly consumed, the regulation of dopamine and noradrenaline is altered in the brain and result in opioid dependence and subsequent withdrawal.

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Opioid Dependence Defined

Section 3



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This section discusses the difference between dependence and addiction and outlines the signs and symptoms of opioid dependence.



DEFINING OPIOID DEPENDENCE



True or False: The previous section, “Psychopharmacology of Opioids,” describes what an opioid dependent client looks like, as well as what to look for to make a diagnosis of opioid dependence ____

The previous section described what a person physically dependent on opioids experiences through opioid use and the withdrawal process; however, physical dependence is only one component of opioid dependence and should not be mistaken as such. The differences between dependence and addiction are great and should be clearly understood before treating this population, especially when considering medication-assisted treatment for opioid dependence.



Small Group Exercise: Divide into small groups of three or four participants and answer the question below. Once your group has finished its discussion, please select a member of your group to write your answers on the white paper located throughout the room.

What is the difference between dependence and addiction?

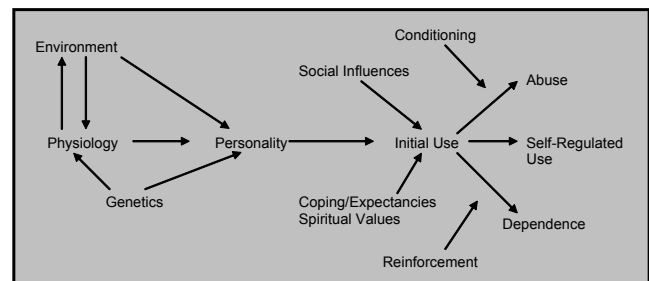
Addiction: _____

Dependence: _____

Physical dependence to opioids can develop if an individual consumes opioids for an extended period of time. For example, if an individual consumes prescribed pain medication for a recent injury for several weeks, he or she will experience opioid withdrawal symptoms if the medication is stopped suddenly. However, the presence of physical dependence does not mean he or she is addicted to opioids. It simply points to the physical changes in the brain that occur with any prolonged use of opioids.

Opioid dependence, also known as opioid addiction, is a brain disease mostly characterized by a client’s inability to control his or her thoughts of and intake of opioids. It develops after opioids are repetitively consumed and the brain readjusts to their constant presence. Opioid dependence is involuntary and is affected by many factors. The following chart illustrates the varying factors that contribute to and reinforce opioid dependence.^{xxxv}

Contributing Factors to Opioid Dependence



Source: DiClemente, C.C., 2003.

NOTE: All of these factors can have arrows to “Initial Use” and then to any or all of the three patterns of use (“Abuse,” “Self-Regulated Use,” or “Dependence”). Most could have arrows that demonstrate linear or reciprocal causality, as well.

In the course of becoming opioid dependent, the factors pointing to “Initial Use” act as risk and protective factors that are substantially involved in the development of opioid dependence, such as environment,

personality, etc. Ironically, in the course of recovery, these same factors are considered complications, consequences or facilitative factors that can hinder or promote recovery.^{xxxvi} Naturally, a client with many different factors affecting his or her dependence and recovery process needs to have a treatment plan that addresses each component in a unique way.

Opioid dependence manifests itself similarly in most people, and the American Psychiatric Association (APA) and the World Health Organization (WHO) have identified a predictable series of symptoms evident in clients suffering from opioid dependence. The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition – Text Revision (DSM-IV-TR) and the International Statistical Classification of Diseases and Health Related Problems, Tenth Revision (ICD-10) mark opioid dependence as a disease that contains:

- craving
- loss of control
- physical dependence
- tolerance

Although there are small differences in criteria, both classifications clearly outline the pattern of opioid dependence and the effects from abuse. However, neither resource mentions the word “addiction,” and this omission has caused great confusion.

Below is a complete listing of the criteria for opioid dependence, most commonly referred to as “opioid addiction,” as outlined by the DSM-IV-TR and ICD-10.

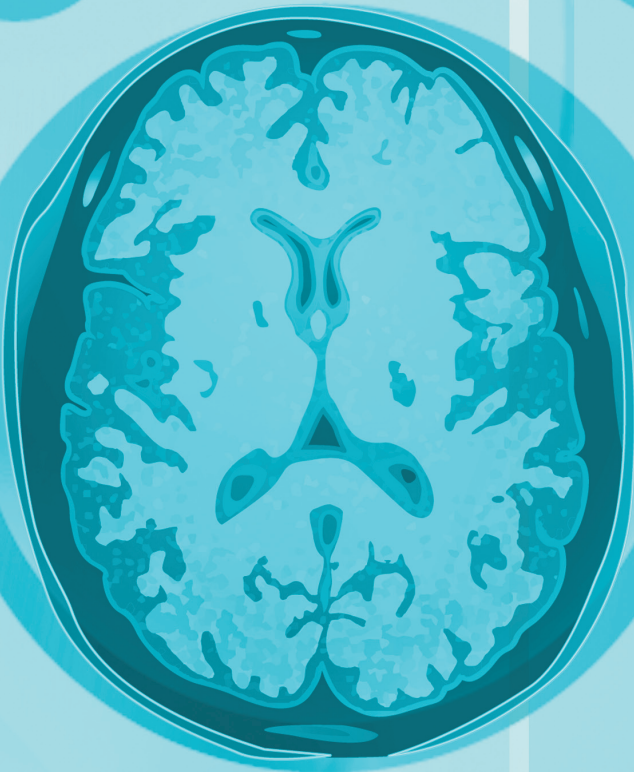
DSM-IV-TR ^{xxxviii}	ICD-10 ^{xxxix}
<i>A maladaptive pattern of opioid use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:</i>	<i>A strong desire or sense of compulsion to consume opioids. Three or more of the following manifestations should have occurred together for at least one month or, if persisting for periods of less than one month, should have occurred together repeatedly within a 12-month period:</i>
<ul style="list-style-type: none"> • tolerance, as defined by either a need for markedly increased amounts of opioids to achieve intoxication or desired effect OR markedly diminished effect with continued use of the same amount of opioids; 	<ul style="list-style-type: none"> • evidence of tolerance to the effects of opioids, such that there is a need for significantly increased amounts of opioids to achieve intoxication OR the desired effect, or a markedly diminished effect with continued use of the same amount of opioids;
<ul style="list-style-type: none"> • withdrawal, as manifested by either the characteristic withdrawal syndrome for opioids OR more opioids are taken to relieve or avoid withdrawal symptoms; 	<ul style="list-style-type: none"> • a physiological withdrawal state when opioids are reduced or ceased, as evidenced by the characteristic withdrawal syndrome for opioids OR by use of opioids with the intention of relieving or avoiding withdrawal symptoms;
<ul style="list-style-type: none"> • opioids often taken in larger amounts or over a longer period than was intended; 	<ul style="list-style-type: none"> • impaired capacity to control consumption in terms of its onset, termination or levels of use, as evidenced by opioids being often taken in larger amounts or over a longer period than intended OR by a persistent desire to or unsuccessful efforts to reduce or control opioid use;
<ul style="list-style-type: none"> • there is a persistent desire or unsuccessful efforts to reduce or control opioid use; 	
<ul style="list-style-type: none"> • a great deal of time is spent in activities necessary to obtain opioids, use opioids or recover from their effects; 	<ul style="list-style-type: none"> • preoccupation with opioids, as manifested by important alternative pleasures or interests being given up or reduced because of use OR a great deal of time being spent in activities necessary to obtain, take or recover from the effects of opioids; and
<ul style="list-style-type: none"> • important social, occupational or recreational activities are given up or reduced because of opioids; and 	
<ul style="list-style-type: none"> • opioid use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused/ exacerbated by opioids. 	<ul style="list-style-type: none"> • persistent opioid use despite clear evidence of harmful consequences, as evidenced by continued use when the individual is actually aware, or may be expected to be aware, of the nature and extent of harm.

Summary: Opioid dependence is a brain disease characterized by a predictable series of signs and symptoms.

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Opioid Dependence Treatment

Section 4



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This section discusses the three medication-assisted treatments for opioid dependence that are approved by the Food and Drug Administration (FDA)..



REASONS FOR NOT ENTERING TREATMENT

As the data presented earlier demonstrates, the number of people dependent on opioids far exceeds the number of people seeking and/or receiving treatment for opioid dependence. There are many systemic and societal barriers in place that contribute to this discrepancy and prevent opioid users from receiving treatment.

- 1.) Only a few limited treatment options are available to opioid dependent clients. Most treatment programs utilize either a medical model, such as opioid treatment programs (OTPs), or bio-psycho-social-spiritual therapy. However, used alone, both approaches are lacking components of the other. Many OTPs do not have large behavioral treatment components, and many psychosocial programs do not provide adequate medical interventions to help the person through the withdrawal process.
- 2.) A very strong stigma still exists for clients receiving treatment for opioid dependence. Stigmatizing labels, such as “junkie” or “addict,” as well as stereotypes of opioid users can be really debilitating for some clients and prevent them from receiving treatment.
- 3.) Since medications like methadone have been around for many decades, stories of abuse, dependence and cross-addiction have widely circulated across the country. This cycle of misinformation and lack of education can prevent clients from learning about the appropriate uses of medication assisted treatments and/or obtaining treatment that they feel comfortable with.
- 4.) Buprenorphine is available at some opioid treatment programs (OTPs), but is only made available in a daily dose, which can be disruptive for the person seeking treatment.
- 5.) Opioid treatment programs (OTPs) are not always easily accessible or convenient, and they have very structured rules that require regular attendance. Clients who are not able to follow the rules or present themselves for scheduled dispensing hours may not be able to receive medication.
- 6.) Many treatment programs for addiction require their clients to be completely abstinent from all drugs and may include medications for opioid dependent treatment, which may complicate treatment options for opioid dependent clients. For these programs, methadone and buprenorphine are classified as drugs. However, some opioid dependents are not able to stop using opioids or opioid replacements without the use of these medications. Unfortunately, this population is not welcome in total abstinence treatment programs and is further limited in their treatment options.
- 7.) There are not enough treatment programs and facilities available to accommodate the large population of opioid dependents requiring treatment. It is difficult for new opioid treatment programs to open due to the N.I.M.B.Y., “not in my back yard,” sentiments prevalent in many communities. Even though most people recognize the importance of providing opioid treatment, they do not want such programs close to their neighborhoods. Zoning restrictions and public outcry often create delays or prevent programs from opening, making it difficult to open new facilities.

Many of the aforementioned barriers to opioid dependence treatment have been partially alleviated by the passage of DATA 2000. DATA 2000 has enabled the expansion of available treatment options, provided more locations for treatment and reduced the stigmatization of clients who wish to seek treatment privately through their physician.

Further, the lack of education concerning opioid dependence treatment is addressed through increased training and education. Disseminating information about the appropriate uses of medications used to treat opioid dependence, as well as the bio-psycho-social-spiritual aspects of treatment, contributes to the provision of humane, evidence-based treatment and opportunities for opioid dependents who otherwise would not be in recovery.

The next section will discuss three medications approved by the FDA for the treatment of opioid dependence: naltrexone, methadone and buprenorphine. Note: LAAM is also approved by the FDA for opioid dependence treatment. However, recent discoveries concerning its safety have led to it being discontinued; therefore, it will not be discussed.

Detailed aspects of each pharmacotherapy for opioid dependence will be explained, including: appropriateness of use, special precautions, missed dose instructions and side effects. Depending on your professional licenses and credentials, many of the items discussed in the next section are beyond the *scope of practice* for most counselors, since most counselors do not have prescribing privileges. However, it is important for addiction counselors and other helping professionals to be as familiar with medication-assisted treatments as possible.

The material in the next section should be used for information only and as an additional resource for educating clients, their families and sometimes prescribers - within the addiction professionals' scope of practice. Often, counselors see the client the most and are in the best position to recognize danger signs, abnormal side effects and to monitor and support compliance.

Addiction professionals should always direct a client to his or her prescriber if any questions or concerns regarding prescribed medications arise.



NALTREXONE FACT SHEET^{XLII}

GENERAL

Generic Name: naltrexone hydrochloride

Marketed As: *ReVia*[®] and *Depade*[®]

Indication: In the treatment of alcohol dependence and for the blockade of the effects of exogenous administered opioids.

Purpose: To discourage opioid use by reducing or eliminating the euphoric effects experienced by consuming exogenous administered opioids.

Year of FDA-Approval: 1984

Description: Naltrexone is available as *Depade*[®] in 25 milligram (mg), 50mg and 100mg capsules. The 25mg pill is a pink, film-coated capsule, with “25” debossed on one side and “DEPADE” on the other. The 25mg capsules are available in bottles of 30. The 50mg pill is a yellow, film-coated capsule, with “50” and a full line debossed on one side and “DEPADE” on the other. The 50mg capsules are available in bottles of 30 and 100. The 100mg pill is a beige, film-coated capsule, with “100” and partial lines debossed on one side and “DEPADE” on the other. The 100mg capsules are available in bottles of 30 and 100.^{xliii}



Naltrexone is also available as *ReVia*[®] in 50mg film-coated tablets that are beige and round with “ReVia” debossed on one side and “b/275” on the other.^{xliiv}



ADMINISTRATION

Abstinence Requirements: Must be abstinent from opioids for at least seven to ten days prior to treatment initiation. If the client is not opioid-free, administering naltrexone will precipitate withdrawal.

Dosage: The recommended dose is 50mg taken by mouth once daily. There is no difference between the starting, maintenance and ending dosages. Clinical studies indicate that 50mg of naltrexone will block the effects of 25mg of intravenously administered heroin for periods as long as 24 hours. Other data suggest that doubling the dose of naltrexone provides blockade for 48 hours, and tripling the dose provides blockade for about 72 hours. A flexible approach to a dosing regimen may be employed to enhance compliance. Thus, clients may receive 50mg of naltrexone every weekday with a 100mg dose on Saturday. Alternatively, clients may receive 100mg every other day or 150mg every third day. Several clinical studies have used the following schedule with success: 100mg on Monday, 100mg on Wednesday and 150mg on Friday.

Food Effect: Can be taken with food with no adjustment of dose necessary. It can be crushed, halved or diluted in liquid if necessary.

Missed Dose Instructions: Take missed dose if not almost time for the next dose; otherwise, skip missed dose and resume regular schedule.

Risk of Overdose: While overdose is possible, doses up to 800mg daily did not produce any serious side effects. However, in the event of an overdose, appropriate medical treatment should be sought.

Recommended Length of Treatment: The FDA alludes to 12 weeks, but many studies have been conducted where the length of treatment was considerably longer (six to nine months) and outcomes have been favorable. The length of naltrexone treatment should be left to the discretion of the physician.

Psychosocial Counseling Requirements: Should be used in conjunction with a comprehensive bio-psychosocial-spiritual treatment program.

APPROPRIATE POPULATIONS

Age Range: *FDA-approved* for clients aged 18 to 65 years old.

Use with Adolescents: Has not been tested with this population, and it is not FDA-approved for use with adolescents.

Use with the Elderly: Has not been tested with this population, and it is not FDA-approved for use with the elderly.

Use with Pregnancy: Naltrexone has not been adequately tested on pregnant or nursing women. The potential for naltrexone to affect labor and delivery is unknown. Therefore, naltrexone has a Pregnancy Category C designation, meaning that it should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. It is also unknown whether naltrexone is excreted through human breast milk. Caution should be exercised when using naltrexone with this population.

Use with Polysubstance Abusers: Has not been adequately tested with this population.

ADDITIONAL INFORMATION

Addictive Properties: Has not been found to be addictive, does not have a high abuse *liability*, will not cause the development of tolerance or produce withdrawal symptoms when the medication is ceased. There were no reports of injection, smoking or prescription deviation during the clinical trials.

Cost: approximately \$110.68 per month, which is around \$3.69 a day.^{xlv}

Third-party Payer Acceptance: Covered by most major insurance carriers, Medicare, Medicaid and the VA.



METHADONE FACT SHEET^{XLVI}

GENERAL

Generic Name: methadone hydrochloride

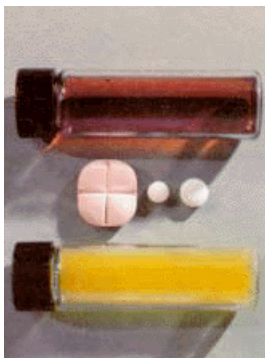
Marketed As: *Methadose*[®] and *Dolophine*[®] (among others)

Indication: For the treatment of moderate to severe pain not responsive to non-narcotic analgesics; for *de-toxification* treatment of opioid addiction; for maintenance treatment of opioid addiction, in conjunction with appropriate social and medical services.

Purpose: To discourage illicit opioid use due to cravings or the desire to alleviate opioid withdrawal symptoms.

Year of FDA-Approval: 1964

Description: Methadone is distributed by many pharmaceuticals; the medication looks different for each pharmaceutical, so use the following descriptions as examples, but not an exhaustive list.



Methadone is available as Dolophine in 5mg and 10mg dosages. Both pills are uncoated, round white tablets with “54 142” and “54 549,” respectively, debossed on one side and scored on the other. Each dosage is available in bottles of 100 tablets.^{xlvi}

Methadone is available as Methadose and Methadose Oral Concentrate. Methadose Oral Concentrate is a liquid version of methadone and is available as a red, cherry-flavored liquid concentrate in one-liter bottles. Methadose Sugar-Free Oral Concentrate is also available.^{xlvi}

ADMINISTRATION

Abstinence Requirements: Must be abstinent from opioids long enough to experience mild to moderate opioid withdrawal symptoms. This period of abstinence will vary depending on previous opioids used and level of dependency.

Dosage: The recommended initial dose is 20 to 30mg of methadone taken by mouth daily. The initial dose should not exceed 30mg. Most often, this dosage will be sufficient to suppress withdrawal symptoms. An additional five to 10mg may be administered if withdrawal symptoms are still present or reappear. The total daily dose of methadone on the first day of treatment should not exceed 40mg. After an appropriate dosage has individually been identified for the client, he or she should continue to take a daily dose of between 80 to 120mg of methadone per day. An appropriate dose will prevent opioid withdrawal symptoms for 24 hours, reduce cravings, block the euphoric effects of self-administered opioids and not cause bothersome *sedative* effects.

Food Effect: The effect of consuming food with methadone has not been evaluated and therefore, is not recommended.

Missed Dose Instructions: Take missed dose if not almost time for the next dose; otherwise, skip missed dose and resume regular schedule.

Risk of Overdose: Just like any opioid, overdose is possible. Manifestations of acute overdose include respiratory depression, extreme *somnolence* progressing to stupor or coma, maximally constricted pupils, skeletal-muscle flaccidity, cold and clammy skin and sometimes, *bradycardia* and *hypotension*. In severe overdoses, particularly by the intravenous route, *apnea*, circulatory collapse, cardiac arrest and death may occur. In the event of an overdose, appropriate medical treatment should be sought.

Recommended Length of Treatment: The FDA has not limited the amount of time a client can be prescribed methadone. Clients can be administered methadone for months or even years with effective results.

Psychosocial Counseling Requirements: Should be used in conjunction with a comprehensive bio-psycho-social-spiritual treatment program, although not required by law.

APPROPRIATE POPULATIONS

Age Range: FDA-approved for clients aged 18 to 65 years old.

Use with Adolescents: Has not been tested with this population, and it is not FDA-approved for use with adolescents.

Use with the Elderly: Has not been tested with this population, and it is not FDA-approved for use with the elderly. In general, dose selection for elderly clients should be cautious, usually starting at the low end of the dosing range, due to the greater frequency of decreased hepatic, renal and/or cardiac function, presence of other disease and use of other medications.

Use with Pregnancy: Methadone has not been adequately tested on pregnant women. Therefore, methadone has a Pregnancy Category C designation, meaning that it should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Caution should be exercised when using methadone with this population. Babies born to mothers who have been taking opioids regularly prior to delivery may be physically dependent and may experience opioid withdrawal symptoms. It is known that methadone is excreted through breast milk, and a decision should be made whether to discontinue nursing or to discontinue the medication, taking into account the importance of the medication to the mother and continued illicit opioid use.

Several studies have suggested that infants born to opioid-addicted women treated with methadone during all or part of pregnancy have been found to have decreased fetal growth with reduced birth weight, length and/or head circumference compared to controls. This growth deficit does not appear to persist into later childhood. However, children born to women treated with methadone during pregnancy have been shown to demonstrate mild but persistent deficits in performance on psychometric and behavioral tests. Further, there are conflicting reports on whether SIDS occurs more frequently in infants born to women treated with methadone during pregnancy.

Methadone is the preferred method of treatment for medication-assisted treatment for opioid dependence. An expert review of published data on experiences with methadone use during pregnancy concludes that it is unlikely to pose a substantial risk. But, there is insufficient data to state that there is no risk.

Use with Polysubstance Abusers: Has not been adequately tested with this population.

ADDITIONAL INFORMATION

Addictive Properties: Chronic administration produces physical dependence. Since methadone is an opioid, it does have a high abuse liability and does produce withdrawal symptoms when the medication is ceased too abruptly or tapered down too quickly.

Cost: approximately \$149.90 per month, which is around \$5.00 a day.^{xlix}

Third-party Payer Acceptance: Covered by most major insurance carriers, Medicare, Medicaid and the VA.



BUPRENORPHINE FACT SHEET^L

GENERAL

Generic Name: buprenorphine hydrochloride

Marketed As: *Subutex*[®] and *Suboxone*[®] (Subutex's main active ingredient is buprenorphine hydrochloride, whereas Suboxone's main active ingredients are buprenorphine hydrochloride and naloxone hydrochloride; differences discussed in greater detail later in this section.)

Indication: For the treatment of opioid dependence.

Purpose: To discourage illicit opioid use due to cravings or the desire to alleviate opioid withdrawal symptoms.

Year of FDA-Approval: 2002

Description: Buprenorphine is available as Suboxone in 2mg and 8mg dosages. Both pills are uncoated, hexagonal orange tablets with "N2" and "N8," respectively, debossed on one side and a "sword" on the other. Each dosage is available in bottles of 30. Each tablet also has a sweetener and lemon/lime flavor added to improve the taste.



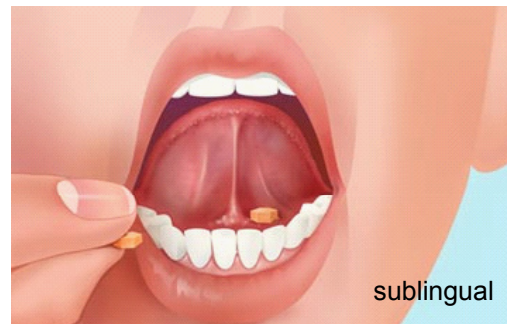
Buprenorphine is also available as Subutex in 2mg and 8mg dosages. Both pills are uncoated, oval white tablets with a vertical score debossed on one side and "B/2" and "B/8," respectively, on the other. Each dosage is available in bottles of 30.^{lii}



ADMINISTRATION

Abstinence Requirements: Client needs to be abstinent from opioids long enough to experience mild to moderate opioid withdrawal symptoms. This period of abstinence will vary depending on previous opioids used and level of dependency.

Dosage: Both Subutex and Suboxone are administered as a single dose sublingually in a range of four to 24mg per day. Tablets should be placed under the tongue until they are completely dissolved. Swallowing the tablets reduces the bioavailability of the medication.



There are four phases associated with medication-assisted treatment for opioid dependence: induction, stabilization, maintenance and medically-assisted withdrawal.

Induction refers to the procedures used to transition someone from other opioids onto buprenorphine. The goal of induction is to establish the appropriate dose of medication for the client to discontinue use of illicit opioids with minimal withdrawal symptoms, side effects and cravings. While the physician primarily guides this process, the multidisciplinary team is critical in providing supportive care and counseling to help the client through the process.

Treatment should be initiated when the client is experiencing mild opioid withdrawal symptoms; the type of opioid used will determine when the client will begin to experience withdrawal. For your reference, use *Appendix B: Clinical Opiate Withdrawal Scale (COWS)* in this manual to determine the severity of opioid withdrawal symptoms. If the client is dependent on short-acting opioids (e.g. heroin), the first dose of buprenorphine should be administered at least four hours after the client's last use of opioids. However, less is

known about transitioning clients from long-acting opioids (e.g. methadone), but it is assumed the process is similar to short-acting opioids. Therefore, if the client is dependent on long-acting opioids, the first dose of buprenorphine should be administered at least 24 to 48 hours after the client's last use of long-acting opioids.

Following induction, the next phase is **stabilization** where an optimal dosage is identified so the client does not experience any negative symptoms, side effects or cravings. The recommended target dose of buprenorphine is 16mg per day. Clinical studies have shown that 16mg of buprenorphine is a clinically effective dose compared with *placebo* and indicates that doses as low as 12mg may be effective in some clients. The dosage of buprenorphine should be progressively adjusted in increments/decrements of 2mg or 4mg to a level that holds the client in treatment and suppresses opioid withdrawal effects. This is likely to be in the range of 4mg to 24mg per day, depending on the individual. Induction and stabilization usually occurs over a period of three to four days.

At this point, the decision can be made to either move onto the **maintenance phase** or **medically-assisted withdrawal**. If the client continues to the maintenance phase, the use of Suboxone versus Subutex is preferred when the client is unsupervised, due to the presence of naloxone. The use of Subutex during maintenance is only recommended when Suboxone is *contraindicated*. During maintenance treatment, everyday dosing is not necessary or usually preferred by the clients. Dosing three times per week has been shown to be safe and effective, so alternative dosing schedules should be evaluated on a client-by-client basis. While the client is being maintained with buprenorphine, counselors should begin bio-psycho-social-spiritual counseling to address the issues preventing him or her from leading a more fulfilling life.

The decision to discontinue buprenorphine treatment after a period of maintenance or brief stabilization should be made as part of a comprehensive treatment plan. Not all clients are appropriate for medically-assisted withdrawal (a.k.a dose tapering) from buprenorphine. Unstable living situations, multiple relapses, previous failed detoxification attempts or lack of desire to withdraw from

opioids may indicate that maintenance is a better treatment option. However, if appropriate, the goal of medically-assisted withdrawal is to help clients transition off opioids so that they are no longer physically dependent. This can be accomplished in an inpatient or outpatient setting, but regardless, it is imperative that a multidisciplinary addiction treatment team is in place to provide supportive services before, during and after medically-assisted withdrawal. There is no set period of time for which medically-assisted withdrawal should last. However, most clients are slowly tapered off over a period of a few days to two weeks, depending on their maintaining doses of buprenorphine and level of stability. Other medications such as clonidine and lofexidine can help alleviate some opioid withdrawal symptoms experienced during this process.

Food Effect: Cannot be taken with food, crushed, halved or diluted in liquid. The entire pill must dissolve under the tongue for medication to have full effect.

Missed Dose Instructions: Take missed dose if not almost time for the next dose; otherwise, skip missed dose and resume regular schedule.

Risk of Overdose: Just like with any opioid, overdose is possible. Manifestations of acute overdose include pinpoint pupils, sedation, hypotension, respiratory depression and death. In the event of an overdose, appropriate medical treatment should be sought.

Recommended Length of Treatment: The FDA has not limited the amount of time a client can be prescribed buprenorphine. Clients can be administered buprenorphine for months or even years with effective results.

Psychosocial Counseling Requirements: Should be used in conjunction with a comprehensive bio-psycho-social-spiritual treatment program, although not required by law.

APPROPRIATE POPULATIONS

Age Range: FDA-approved for clients aged 16 to 65 years old.

Use with Adolescents: Has not been adequately tested with this population, and it is not FDA-approved for use with adolescents. However, clinical trials are currently being conducted to assess the safety and efficacy of buprenorphine with this population.

Use with the Elderly: Has not been tested with this population, and it is not FDA-approved for use with the elderly.

Use with Pregnancy: Buprenorphine has not been adequately tested on pregnant women. The potential for buprenorphine to affect labor and delivery is unknown. Therefore, buprenorphine has a Pregnancy Category C designation, meaning that it should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. Neonatal withdrawal has been reported in the infants of women treated with buprenorphine during pregnancy. Caution should be exercised when using buprenorphine with this population. Furthermore, buprenorphine is excreted through human breast milk, and breast-feeding is therefore not advised.

However, clinical trials conducted to date suggest that buprenorphine may be an excellent option for pregnant women. Randomized trials are underway to determine the safety and effectiveness of using buprenorphine during pregnancy. Until safety can be determined, methadone is the recommended treatment for pregnant women.

Use with Polysubstance Abusers: Has not been adequately tested with this population.

ADDITIONAL INFORMATION

Addictive Properties: Chronic administration produces physical dependence. Since buprenorphine is an opioid, it does have a high abuse liability and does produce withdrawal symptoms when the medication is ceased abruptly or tapered down too quickly. Due to the potential for abuse, Suboxone includes naloxone, preventing it from being enjoyable when intravenously injected. This mechanism drastically reduces its abuse liability and street value when compared to Subutex.

Cost: Subutex: approximately \$448.00 per month, which is around \$14.93 a day.^{lv} Suboxone: approximately \$356.00 per month, which is around \$11.86 a day.^{lvi} The price of Suboxone will decrease dramatically after October 2009 due to its transition into generic status.

Third-party Payer Acceptance: Covered by most major insurance carriers, Medicare, Medicaid (except for Louisiana) and the VA.



HOW DOES BUPRENORPHINE WORK?^{LVII}

Officially, buprenorphine is a partial opioid receptor agonist, which means that it has both agonist and antagonist characteristics. Depending on dosage, buprenorphine can have varying effects. At low doses, buprenorphine binds to and activates opioid receptors much like other opioid receptor agonists. However, at higher doses, the agonist effects of buprenorphine level out, whereas the psychoactive effects of full opioid agonists continue to increase as the dosage increases. Also, at higher dosages, buprenorphine acts as an antagonist and occupies the opioid receptors for an extended duration. This action is a great benefit of medication-assisted treatment with buprenorphine, since no other opioids can bind to the receptors as long as the client is taking buprenorphine.

Even though buprenorphine has a short half-life, it has a long duration of action. Besides half-life, the duration of action of a substance is also determined by receptor affinity, meaning the strength with which a substance binds to a receptor. Buprenorphine has a very high affinity for opioid receptors, and it will continue to occupy the receptors for 24 to 72 hours, depending on the administered dose.

Think of buprenorphine as the “schoolyard bully.” If a client has recently consumed opioids, such as heroin, when a high dose of buprenorphine is taken, the heroin that has bonded to opioid receptors is “kicked off” and replaced with buprenorphine. Further, if an opioid dependent client consumes opioids while buprenorphine is in his or her system, the illicit opioids are unable to bind to the receptors, and the dependent will not experience the desired effects.

SAFETY PROFILE

Buprenorphine is considered a safe option for medication-assisted treatment for opioid dependence for two reasons:

- 1.) Buprenorphine’s agonist effects level off as the dose increases, making it difficult for clients to overdose.

This phenomenon is referred to as the “ceiling effect.” The characteristic of opioid agonists that is the most dangerous to the consumer is the potential side effect of life-threatening respiratory suppression as the dose increases. Respiratory suppression with buprenorphine is kept to a minimum and does not increase with dose.

- 2.) Buprenorphine is available in the United States in two different preparations: Subutex and Suboxone. Subutex contains only buprenorphine, while Suboxone contains both buprenorphine and naloxone. Suboxone is the preferred method of buprenorphine treatment because it deters clients from using the medication inappropriately or selling it illicitly.

Since buprenorphine is a partial opioid receptor agonist, it does have the ability to produce psychoactive effects if used inappropriately. Reports from other countries where buprenorphine was being abused led U.S. researchers to develop a preparation that was less likely to be misused. Thus, a medication combining both buprenorphine and naloxone (Suboxone) was invented for U.S. distribution.

Naloxone is an opioid receptor antagonist that is commonly used to help revive clients who have an opioid overdose by “kicking off” any opioids that are occupying opioid receptors. Naloxone thrusts clients in this situation into full-blown opioid withdrawal, but they are no longer experiencing respiratory depression and a life-threatening overdose.

As discussed earlier, Suboxone is administered and dissolved sublingually. Since naloxone is not as easily absorbed through oral tissues as buprenorphine, an appropriately administered dose of Suboxone will provide a full dose of buprenorphine and only a small, non-effective dose of naloxone. However, if Suboxone is administered inappropriately, meaning crushed, injected or snorted, the opioid dependent client will receive a much different effect than anticipated.

The amount of buprenorphine in a Suboxone tablet is approximately twice as strong when injected as compared to sublingual administration. On the other hand, the amount of naloxone in a Suboxone tablet is 15

times more potent if injected. If Suboxone is administered inappropriately, the antagonist effects of naloxone will override the agonist effects of buprenorphine (and other opioids in the bloodstream) and cause the client to experience full-blown withdrawal symptoms. It only takes one misuse for an opioid dependent to recognize the negative consequences of abusing Suboxone.

ADDITIONAL INFORMATION

Mechanism of Action: partial opioid receptor agonist

Half-life: Approximately 37 hours for buprenorphine and one hour for naloxone.

Differences between race and genders?: There have not been any significant *pharmacokinetic* differences found between male and female clients or clients of varying races and ethnicities.

Metabolism: In the liver.

Elimination: Primarily through feces.



SCIENTIFIC RESEARCH ABOUT BUPRENORPHINE

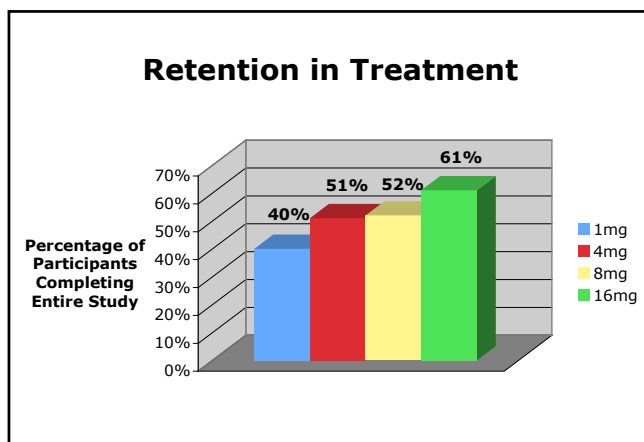
There were three pivotal trials of buprenorphine submitted to the FDA for approval consideration. All three studies were *parallel group*, *double-blind*, *randomized* studies. The study periods ranged from 16 to 17 weeks of treatment. In addition, all participants were opioid dependent and did not necessarily receive bio-psycho-social-spiritual therapy. Please refer to Appendix C: Abstracts of Pivotal Clinical Trials for Buprenorphine in this manual for a full description of each study. The studies evaluated the performance of medication-assisted treatment for opioid dependence by measuring:

- “*retention in treatment*,” which is defined as the number of days from first dose to last dose of treatment; and
- “*opioid use*,” which is defined as consuming illicit opioids during the study.

STUDIES AND RESULTS

A 16-week study by Ling et al. evaluated the efficacy of four different dosages of buprenorphine: 1mg, 4mg, 8mg and 16mg. Participants in this study were required to receive some form of bio-psycho-social-spiritual therapy during the study.

Results: Participants treated with 8mg or 16mg of buprenorphine had significantly higher retention rates than participants treated with 1mg of buprenorphine.^{lviii}

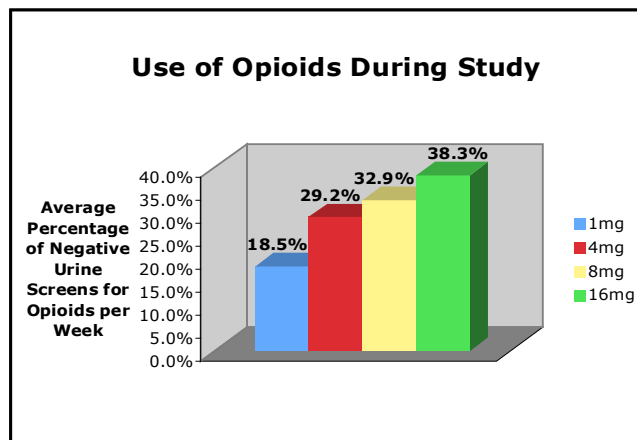


Source: Ling, W., Charuvastra, C., Collins, J.F., Batki, S., Brown, L.S., Kintaudi, P., et al., 1998.



True or False: If given at the appropriate dose, buprenorphine can help clients remain in treatment. _____

Results: Participants treated with 8mg or 16mg of buprenorphine consumed opioids significantly less than participants treated with 1mg of buprenorphine.^{lix}



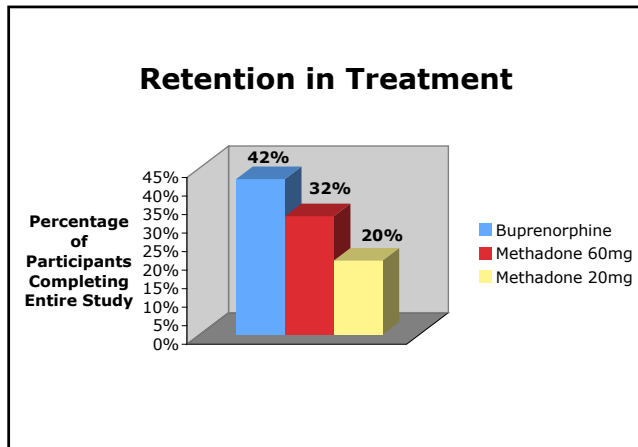
Source: Ling, W., Charuvastra, C., Collins, J.F., Batki, S., Brown, L.S., Kintaudi, P., et al., 1998.




True or False: If given at the appropriate dose, buprenorphine can help clients reduce their illicit opioid use. _____

A 17-week study by Johnson et al. evaluated the efficacy of buprenorphine in comparison to two different dosages of methadone: 20mg and 60mg. Participants in this study were offered some form of bio-psycho-social-spiritual therapy during the study but were not required to attend.

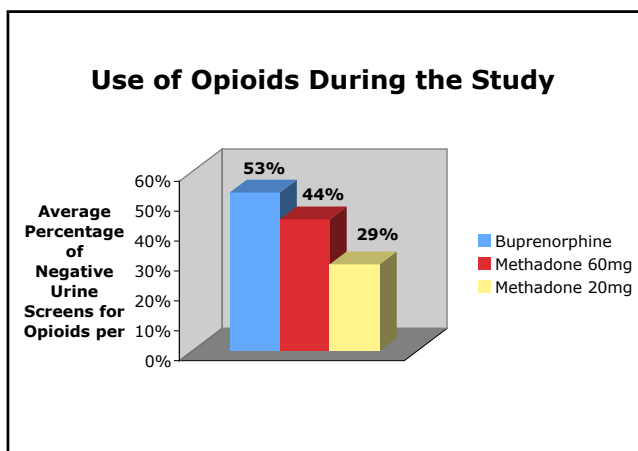
Results: Participants treated with buprenorphine or 60mg of methadone had significantly higher retention rates than participants treated with 20mg of methadone.^{lx}




Source: Chart adapted from Johnson, R.E., Jaffe, J.H., and P.J. Fudala, 1992.

 **True or False:** Buprenorphine is just as effective as an appropriate dose of methadone at helping clients stay in treatment. _____

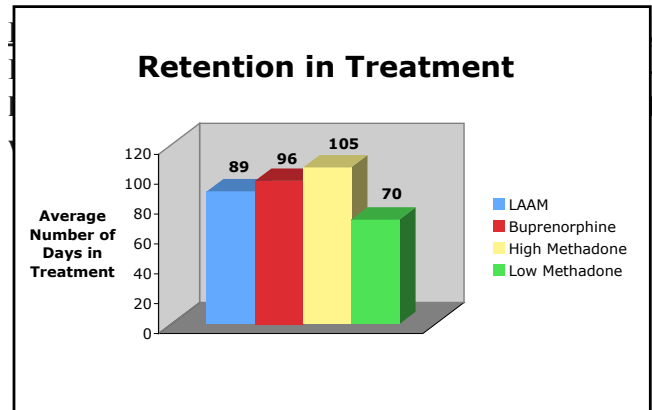
Results: Participants treated with buprenorphine or 60mg of methadone consumed opioids significantly less than participants treated with 20mg of methadone.^{lxi}




Source: Chart adapted from Johnson, R.E., Jaffe, J.H., and P.J. Fudala, 1992.

 **True or False:** Buprenorphine is just as effective as an appropriate dose of methadone at helping clients reduce their illicit opioid use. _____

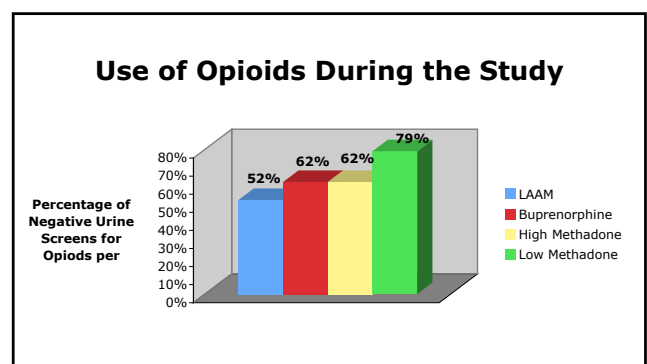
A 17-week study by Johnson et al. evaluated the efficacy of buprenorphine in comparison to levomethadyl acetate (LAAM) and two different dosages of methadone: high dose and low dose. Participants in this study were not offered some form of bio-psycho-social-spiritual therapy during the study.




Source: Johnson, R.E., Chutuape, M.A., Strain, E.C., Walsh, S.L., Stitzer, M.L., and G.E. Bigelow, 2000.

 **True or False:** Buprenorphine is just as effective as an appropriate dose of methadone or LAAM at helping clients stay in treatment. _____

Results: Participants treated with buprenorphine, LAAM or a high dose of methadone consumed opioids significantly less than participants treated with a low dose of methadone.^{lxiii}



Source: Johnson, R.E., Chutuape, M.A., Strain, E.C., Walsh, S.L., Stitzer, M.L., and G.E. Bigelow, 2000.

 **True or False:** Buprenorphine is just as effective as an appropriate dose of methadone or LAAM at helping clients reduce their illicit opioid use. _____

Summary: These three studies showed that buprenorphine treatment:

- can help reduce clients' illicit opioid use, as well as remain in treatment, if given the appropriate dose.
- is just as effective as LAAM and high doses of methadone at keeping clients in treatment; and
- is just as effective as LAAM and high doses of methadone at helping clients reduce their illicit opioid use.

SIDE EFFECTS AND CONTRAINDICATIONS FOR BUPRENORPHINE^{LXIV}

SIDE EFFECTS

The most common side effects that occurred in 5% or more of clients from using buprenorphine or placebo during the clinical trials were:

- | | |
|---------------------|---------------------------|
| ■ <u>abscess</u> | ■ infection |
| ■ accidental injury | ■ insomnia |
| ■ anxiety | ■ lack of energy |
| ■ back pain | ■ nausea |
| ■ chills | ■ nervousness |
| ■ constipation | ■ pain |
| ■ depression | ■ <u>pharyngitis</u> |
| ■ diarrhea | ■ runny eyes |
| ■ dizziness | ■ runny or congested nose |
| ■ drowsiness | ■ sweat |
| ■ fever | ■ upset stomach |
| ■ flu syndrome | ■ vomiting |
| ■ headache | ■ withdrawal syndrome |
| ■ increased cough | |

CONTRAINDICATIONS

- Buprenorphine should not be administered to clients who have previously shown hypersensitivity to buprenorphine hydrochloride or any other components of the medication. Suboxone should not be administered to clients who have previously shown hypersensitivity to naloxone hydrochloride.
- Buprenorphine should not be administered to clients receiving opioid analgesics or actively using opioids.
- Buprenorphine is NOT contraindicated for clients who have hepatic (liver) impairment, but caution should be exercised when using buprenorphine with this population. Since buprenorphine and naloxone is metabolized in the liver, the plasma levels will be expected to be higher in clients with moderate to severe hepatic impairment. Therefore, in clients with hepatic impairment, dosage should be adjusted, and clients should be observed for symptoms of precipitated opioid withdrawal.

- Buprenorphine is NOT contraindicated for clients who have renal (kidney) impairment. However, the effects of naloxone with clients with renal failure are unknown.
- Although NOT contraindicated, caution should be exercised with elderly or debilitated clients and those with alcohol dependence.

DRUG INTERACTIONS

- Clients receiving buprenorphine and any of the following medications should be closely monitored and may require dose-reduction:
 - azole antifungal agents (e.g. ketoconazole)
 - macrolide antibiotics (e.g. erythromycin)
 - HIV protease inhibitors (e.g. ritonavir, indinavir, saquinavir)
 - inducers of CYP 3A4 (e.g. phenobarbital, carbamazepine, phenytoin, rifampicin)
- Significant respiratory depression has been associated with buprenorphine, particularly by the intravenous route. A number of deaths have occurred when buprenorphine has been misused intravenously, usually with *benzodiazepines* concomitantly. Deaths have also been reported in association with concomitant use of buprenorphine and other depressants such as alcohol or other opioids. Clients should be warned of the potential danger of self-administering benzodiazepines or other depressants while being treated with buprenorphine.
- When combining buprenorphine and another narcotic *analgesic*, general anesthetic, benzodiazepine, *phenothiazine*, other tranquilizer, sedative/hypnotic or other central nervous system depressant, including alcohol, reduction of dosage should be considered due to the potential of increased central nervous system depression.

SPECIAL PRECAUTIONS

- Suboxone contains naloxone and if misused parenterally, is highly likely to produce marked and intense withdrawal symptoms in subjects dependent on other opioids, such as heroin, morphine or methadone. If used sublingually before the agonist effects of these opioids have worn off, the client could experience opioid withdrawal symptoms.

- Buprenorphine should be used with caution in clients with compromised respiratory function.
- Cases of cytolytic hepatitis and hepatitis with jaundice have been observed in the opioid dependent population who are treated with buprenorphine. The possibility exists that buprenorphine has a causative or contributory role in the development of the hepatic abnormality in some case, but insufficient data is available to determine the etiology. Measurements of liver function tests prior to induction is recommended to establish a baseline. Periodic monitoring of liver function during treatment is also recommended.
- Like all opioids, buprenorphine may impair the mental or physical abilities required for the performance of potentially dangerous tasks, such as driving a car or operating machinery. Clients should be particularly careful during the induction and stabilization phases while an appropriate dosage is still being discovered. Clients should be cautioned against engaging in these activities until they are certain buprenorphine has not impaired their abilities to perform such tasks.
- Like all opioids, buprenorphine may elevate *cerebrospinal fluid* pressure and should be used with caution in clients with head injuries, *intracranial lesions* and other circumstances where cerebrospinal pressure may be increased.
- Like all opioids, buprenorphine has been shown to increase *intracholedochal* pressure and should be used with caution in clients with dysfunction of the *biliary tract*.
- Clients should inform their family members and significant others that, in the event of an emergency, the medical staff should be informed that they are physically dependent on opioids and being treated with buprenorphine.

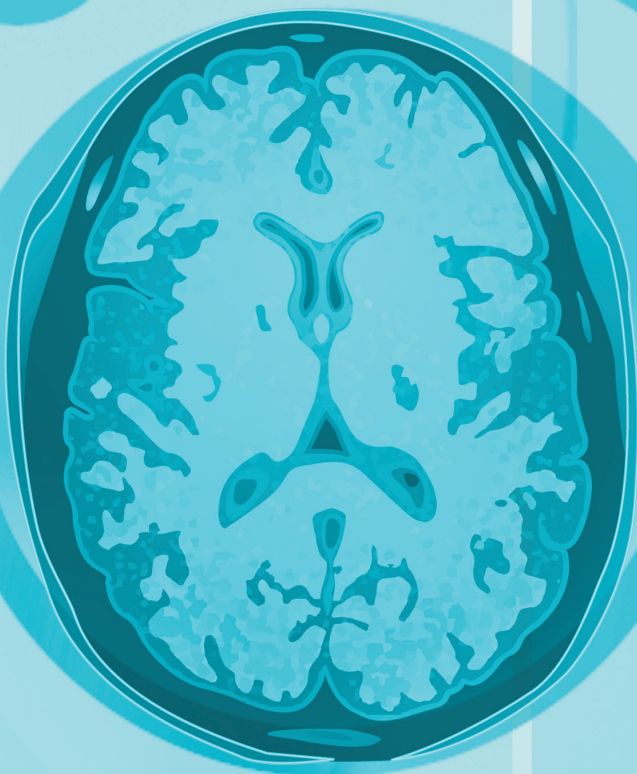
For more information about buprenorphine, including obtaining client ID cards, physician referrals or questions, you may contact Reckitt Benckiser Pharmaceuticals, Inc. at 877.SUBOXONE (877.782.6966) or by visiting www.suboxone.com.

Summary: There are three medication-assisted treatments approved by the FDA to aid in opioid dependence treatment. All three are effective for helping clients discontinue or reduce their use of illicit opioids.

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Identification of Clients for Buprenorphine Treatment

Section **5**



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This section discusses which clients could be good candidates for medication-assisted opioid dependence treatment with buprenorphine and which clients may not be appropriate.



MATCHING BUPRENORPHINE WITH APPROPRIATE CLIENTS^{LXV}

Just like with any other substance use disorder, treatment for opioid dependence must be individualized for the client who is receiving it. Matching treatment settings, interventions and services to each client's particular problems and needs is critical to his or her ultimate success in returning to productive functioning in the family, workplace and society. There is no single treatment approach that is appropriate for every individual, and medication-assisted treatment with buprenorphine is no exception.

Not all clients who are opioid dependent are good candidates for treatment with buprenorphine. A thorough assessment must be conducted to determine the client's suitability for buprenorphine treatment. Whereas it is ultimately the final decision of the client and the physician regarding whether to use buprenorphine, the addiction counselor or other helping professional can be extremely instrumental in this decision. Often, a physician will call on the addiction counselor to provide relevant information gained during the assessment process, as well as the counselor's personal opinion about appropriate treatment options. As such, the addiction counselor or other helping professional must be prepared to quickly and concisely provide this information.

There are three primary criteria that the physician will use to determine suitability for medication-assisted treatment with buprenorphine:

- Is the client addicted to opioids?
- Is buprenorphine the optimal medication for the client?
- Is an office or clinic the optimal site for treatment for the client?

A thorough and complete assessment can help identify the answers to these questions. Ideally, a comprehensive assessment will include the following components:

- history of drug and alcohol use
- precipitating circumstances
- medical health history & physical exam
- mental health history and status
- strength or resiliency factors
- treatment history
- cultural background
- religious or spiritual background
- psycho-social developmental issues
- family history
- employment history
- legal issues
- psychosexual history
- relevant relationships
- support system (family and community)
- educational experience
- leisure activities

In addition, the following questions can specifically determine the appropriateness of buprenorphine treatment for a client:

■ *Is the client addicted to opioids?*

Generally speaking, buprenorphine treatment is designed for clients who meet the DSM-IV-TR criteria for opioid dependence as outline in the third section of this manual. Since one of the most attractive benefits of buprenorphine is its ability to eliminate opioid withdrawal symptoms that could potentially lead to relapse, the presence of physical dependence to opioids is particularly important. However, there are certain circumstances where buprenorphine treatment could be appropriate for individual cli-

ents that do not meet the DSM-IV-TR criteria for opioid dependence. For example, an individual physician may consider a client for buprenorphine treatment with problematic opioid use that has not yet progressed to addiction, but most likely is heading down that path. Perhaps this client has recently switched from snorting heroin to injecting it. In addition, clients who have demonstrated success with buprenorphine in the past but had to discontinue use for various reasons could potentially resume treatment without meeting the DSM-IV-TR criteria for opioid dependence. For example, an opioid dependent client who was incarcerated during treatment with buprenorphine could potentially continue taking the medication upon release.

- *Is the client suitable for/interested in office-based buprenorphine treatment?*

Even if the client is a suitable candidate for medication-assisted treatment with buprenorphine, he or she may not be suited for treatment in an office setting. Co-occurring disorders, such as other substance use disorders, psychiatric disorders or medical conditions, can complicate treatment with buprenorphine. These clients could necessitate additional services like bio-psycho-social-spiritual therapy and/or HIV/AIDS medical interventions that are not offered in a physician's office. Further, certain clients may not have a stable/safe enough home life for office-based treatment and could benefit more from a structured opioid dependence treatment program.

- *Is the client aware of other treatment options?*

Buprenorphine is not the only available treatment option for opioid dependence. Further, it is not even the only option for medication-assisted treatment for opioid dependence. Clients should be educated about all available treatment options, regardless of an addiction counselor or other helping professional's personal opinion of certain approaches. Together with the physician, the addiction counselor can assist the client in making a decision about which treatment options are most appropriate for him or her.

- *Does the client understand the risks, benefits and limitations of buprenorphine treatment?*

In recent decades, the treatment of addiction has entered into a new phase in which medication can play a vital role in helping someone recover. However, some pharmacotherapies have been introduced as the next "great thing," only to reveal serious side effects, including cross addiction. To be clear, neither the pharmaceutical companies nor NAADAC endorses ANY pharmacotherapy as a so-called "magic bullet" or quick fix to addiction. On the contrary, medications are just one tool of many that counselors and clients have at their disposal to combat addiction. Each client needs to have realistic expectations of what buprenorphine, and any therapeutic intervention for that matter, can and cannot do. Like all other medications, buprenorphine does have some notable positives and negatives that should be considered when evaluating the most appropriate treatment for opioid dependence.

- *Is the client expected to be reasonably compliant?*

Treatment with buprenorphine is most effective when it is taken at appropriate intervals determined by the physician. If the client is unable or unwilling to take the medication as prescribed, an alternative method of treatment or a more structured treatment environment should be considered. The client's history of taking other medications as prescribed, showing up on time to scheduled appointments and job stability can be good indicators of whether the client will be compliant with buprenorphine treatment in the future.

- *Is the client expected to follow safety procedures?*

In persons who are not physically dependent upon opioids, buprenorphine can cause unexpected psychoactive effects. Clients prescribed buprenorphine must have the capacity to keep the medication away from children and other visitors in their homes. In addition, if a client

attempts to abuse this medication by inject it, he or she will experience immediate full-blown opioid withdrawal symptoms. Clients need to be educated about this side effect and reasonably assumed to administer the medication as prescribed.

■ *Is the client psychiatrically stable?*

One half to two-thirds of all clients who have a substance use disorder also has another diagnosable mental disorder. Of all psychiatric clients with a mental disorder, one-third of them also have a substance abuse disorder.^{lxvi} Clients who have dual disorders of substance abuse and mental disturbance are exceptionally harder to treat because one problem is usually exacerbated by the other. Before being treated with buprenorphine, the physician must determine if the client is stabilized and receiving the appropriate treatments for each disorder he or she possesses.

■ *Are the psychosocial circumstances of the client conducive to treatment success?*

A client's sources of stress, living situation, romantic and platonic relationships, employment status and level of support can contribute to or undermine his or her success at treatment. Each of these items should be components of the client's individualized treatment plan and considered when evaluating the appropriateness of beginning medication-assisted treatment with buprenorphine.

■ *Are there resources available to ensure the link between physician and other treatment providers?*

It is highly unlikely that a client will succeed in treatment with only medicinal interventions. Clients should clearly understand that pharmacotherapies are intended to help facilitate addiction treatment - not replace it. A comprehensive individualized treatment plan, with buprenorphine as one component, should be developed and agreed upon by the client. It

is likely that the individualized treatment plan will require coordination between several addiction professionals. If the proper resources are not available to provide coordinated care to the client, perhaps treatment with buprenorphine should be delayed until these resources are in place. For your reference, *Appendix D: Sample Blank Treatment Form in this manual contains a blank treatment planning template.*

■ *Is the client taking other medications that may interact adversely with buprenorphine?*

In the previous section, the potential interaction of buprenorphine with other medications is described. Whereas some of these interactions are very specific and technical, others can be easily identified by the addiction counselor or other helping professional. Potentially fatal interactions with alcohol, benzodiazepines or other respiratory depressants should be brought to the attention of the physician immediately. Further, for clients who are also dependent upon one of the aforementioned substances, treatment with buprenorphine should be carefully evaluated. Unfortunately, relapse is often a part of the recovery process and these clients should be informed about the potential risks of mixing alcohol, benzodiazepines or other respiratory depressants with buprenorphine.

These questions can help an addiction counselor or other helping professional determine a client's suitability to begin treatment with buprenorphine and make an educated recommendation to the physician. However, the client's appropriateness for buprenorphine treatment can change over time. Since the counselor sees the client most often, he or she is in the best position to recognize any relevant changes with the client and report them to the prescribing physician. By constantly reevaluating the aforementioned questions, the addiction counselor or other helping professional can ensure the client is receiving the most appropriate and safe treatment available.



ADDITIONAL CLIENT CONSIDERATIONS FOR BUPRENORPHINE^{LXVII}

In addition to the contraindications and special precautions mentioned earlier, clients that meet the following criteria may not be good candidates for medication-assisted treatment with buprenorphine. However, none of the factors below unequivocally prohibits a particular client from being treated with buprenorphine, but special consideration should be given to weigh the potential benefits of this treatment approach against the potential harm to the client.

Even though it is the final decision of the physician and the client to determine the appropriateness of prescribed medications, addiction counselors and other helping professionals must be prepared to join the discussion if necessary. The following factors may or may not eliminate a client from being treated with buprenorphine, but certainly, the physician needs to be contacted immediately if the counselor discovers any of the following statements to be true.

- *The client is not dependent on opioids.*

The patient instruction sheet that is included with each prescription of buprenorphine states that buprenorphine is a medication “for the treatment of opioid dependence.” Treating clients who are not dependent on opioids is considered “off-label use.”

- *The client does not wish to be treated with buprenorphine.*

Just as the physician has the ability to prescribe buprenorphine, the client has the ability to refuse treatment. The client should never be pressured or forced to participate in a treatment plan that he or she does not feel is best.

- *The client does not wish to be treated in an office-based setting.*

The passage of DATA 2000 made opioid dependence treatment exponentially easier since it can take place in an office setting. However,

the circumstances of some clients’ dependencies and other disorders make it difficult to provide quality treatment in a physician’s office. These clients would be better served in an alternative treatment setting.

- *The client unrealistically relies on the potential benefits of buprenorphine and is unwilling to engage in the therapeutic process.*

Buprenorphine is not and should not be viewed as a miracle solution to opioid dependence. If a client does not wish to participate in some form of therapy to address the root causes of his or her addiction, an alternative treatment plan should be explored.

- *The client does not appear to be capable of or willing to take buprenorphine as prescribed.*

The advent of Suboxone has afforded opioid dependent clients a safer way to receive medication-assisted treatment. However, it can only work if taken in appropriate dosing intervals and method of administration as prescribed.

- *The client does not appear to be psychiatrically stable enough to participate in buprenorphine treatment.*

Clients who suffer from a mental disorder as well as opioid dependence may not be able to utilize buprenorphine treatment due to the side effects of significant mental impairment.

- *The client is dependent on or abusing high doses of a central nervous system depressant, such as alcohol or benzodiazepines.*

As mentioned earlier, central nervous system depressants can interact negatively with buprenorphine. Dependence on or abuse of any of these substances can potentially endanger the client’s life if they are consumed together. Further, abuse of other drugs may interfere with overall treatment adherence. Clients with multiple addictions may need to be referred to more intensive treatment.

- *The client has experienced multiple previous opioid treatment episodes, all of which resulted in frequent relapse.*

It is important to understand the reasons previous opioid treatment episodes were unsuccessful and use this information to shape the current treatment plan. If previous treatment episodes involved treatment with buprenorphine, the reasons for failure should be explored before attempting a similar treatment plan.

- *The client is dependent on extremely high doses of opioids.*

Buprenorphine is effective for clients who are dependent on extremely high doses of opioids. However, level of opioid use needs to be evaluated when considering transitioning the client to medication-assisted treatment. Even though the convenient dosing schedule of buprenorphine is attractive for some clients, others may benefit from the frequent dosing schedules of methadone to continue to stay engaged in the recovery process.

- *The client has a high risk for relapse based on his or her psychosocial and/or environmental conditions.*

The client's environment and psychosocial conditions can directly contribute to the success or failure of his or her recovery, such as living with others who frequently consume opioids. If the client is not expected to benefit from buprenorphine treatment due to external causes, an alternative treatment option should be considered.

- *The client may be pregnant or is nursing.*

At this time, buprenorphine is not FDA-approved for use with pregnant women or nursing mothers. Methadone is the recommended medication-assisted treatment for opioid dependence for this population.

- *The client has previously experienced seizures.*

Seizures can occur with some opioids. Buprenorphine has not been shown to cause seizures, but caution should be exercised with this population.

- *The client has HIV/AIDS, hepatitis C or a sexually transmitted disease (STD).*

Having HIV/AIDS, hepatitis C or an STD is not contraindicated for buprenorphine treatment. However, these clients often take a myriad of medications to treat his or her disease, any of which could potentially interact with buprenorphine.

- *The client does not have a good support system in place to promote recovery.*

A poor social support system is not ideal for any treatment process. The multidisciplinary addiction treatment team should work with the client to develop a plan to help the person engage and strengthen effective support.

The aforementioned criteria should only be used by the addiction counselor or other helping professional as a guide for ensuring the client receives the best treatment available based on his or her individual circumstances. However, this list is not exhaustive. In addition, the counselor or other helping professional should continuously evaluate this list to ensure the client's circumstances have not changed in a way that will jeopardize his or her continued success with treatment. By maintaining a good relationship with the physician and other members of the multidisciplinary team, changes with the client can be discussed and used to determine the best approach to treatment at each stage of recovery.



CASE STUDY - RYAN



Ryan is a 35 year old, Asian, married male who works as a program analyst for a local high tech company that does a lot of contract work with the Department of Defense (DOD). He has two young daughters, aged four and seven. He also takes care of his elderly father who is disabled due to a mining accident 30 years ago. He needs to be taken to reg-

ular medical appointments and assists with other daily living issues that arise. Ryan's wife of ten years is less than supportive of this arrangement and often provides him with little support and will not use time away from her nursing job to assist him. He is HIV positive and was recently diagnosed with depression. He is currently being treated with appropriate medications for both illnesses. Ryan has a 20 year history of opioid dependence, abusing both high doses of heroin and pain killers. He first began using heroin with friends in high school and expanded into illicit street purchased pain-killers, such as Vicodin and Demerol, while in college. He had several run-ins with the law over his use but was never charged with any crimes. Ryan stopped using drugs for a period of time after he first met his wife and only consumed alcohol on an occasion. He claims he does not have a problem with alcohol. Shortly after they were married, both he and his wife were in an accident and hospitalized for their injuries for a brief period of time. His injuries were a little more severe, and he continued in physical therapy and visited a pain clinic for nearly a year before he could return to work. It was during this time that Ryan returned to his use of opioids legitimately at first but then pressured his physician to prescribe more and more to the point where the physician finally discharged him because of his apparent drug seeking behavior. Ryan has tried, and failed for the most part, at outpatient therapy, holistic treatment and methadone clinics in his desire to bring his problem under control. It has been this off and on again stability that has led to the majority of the friction between he and his wife. She has threatened to leave him several times during the past few years. Ryan recognizes the

severity of his problem and realizes that he jeopardizes his security clearance with the DOD should he not control his use or if he were to get arrested for some type of illicit behavior. He has attended several NA meetings lately but just doesn't feel he connects with those there. His pursuit of some change now leads him to call a new local addiction provider in the community that specializes in opioid treatment. He is curious to see if this professional can assist him in structuring some type of plan that will point him towards long term recovery.



Do you feel Ryan is a good candidate for medication-assisted treatment with buprenorphine?_

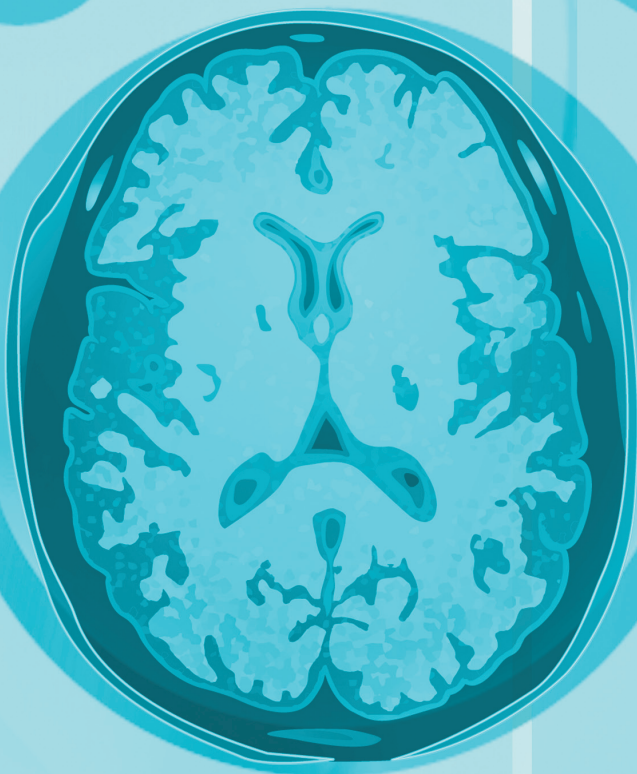
Please underline which components of his case study you feel are important factors when considering medication-assisted treatment with buprenorphine.

Summary: Not all clients are good candidates for medication-assisted opioid dependence treatment with buprenorphine. All clients should be carefully evaluated before treatment with buprenorphine is started.

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Coordinated Care

Section 6



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This section discusses the importance of holistic treatment and coordinated care, as well as the roles and expectations of the multidisciplinary team and the client.



HOLISTIC TREATMENT FOR OPIOID DEPENDENCE

Typically, opioid dependence, and all addictions for that matter, consists of four equally important facets: biological, psychological, social and spiritual. Often in addiction treatment, special attention is given to one or more of these areas, but not all of them. Like regular attendance to support groups, bio-psycho-social-spiritual therapy and reliance on a higher power, pharmacotherapies are only one component of addiction treatment and cannot independently treat opioid dependence.

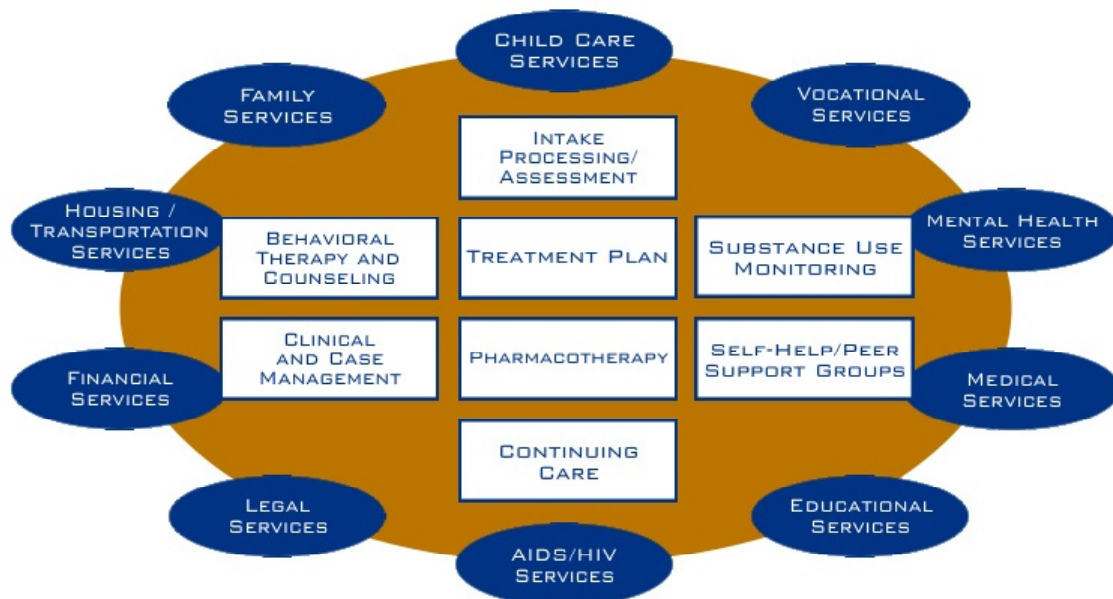
In order for a client to fully recover from opioid dependence, each of the four areas must be addressed during the treatment process.

Think of this concept as a chair, with each leg representing one component of a client's treatment plan. All four legs are required to "support" the client, and if one leg is missing, the chair will be unstable and unable to fully accomplish its goal.

The treatment plan must be tailored to address the multiple needs of the individual, not just his or her opioid dependence. Comprehensive and effective treatment should visually resemble the following diagram:^{lxviii}

Many of the areas to be addressed during a client's treatment are beyond the scope of practice of an addiction counselor. Providing comprehensive treatment requires the expertise of a variety of professionals from several organizations and arenas. For this reason, it is important to examine how care can be delivered in a consistent, coordinated and client-friendly manner to ensure he or she receives the best holistic treatment available.^{lxix}

Components of Comprehensive Drug Abuse Treatment



Source: National Institute on Drug Abuse, 1999.



SUCCESSFUL COORDINATED CARE

Prior to DATA 2000, medication-assisted treatment for opioid dependence occurred only in federally regulated opioid treatment programs (OTPs). Now that opioid dependence treatment can be dispensed in a physician office, the need for *coordinated* care has never been more important or essential.

coordinated care - the continuous collaboration between all members of the multidisciplinary addiction treatment team to provide the best available individualized treatment services to a client

The primary roles of the multidisciplinary addiction treatment team fall into four categories:

- 1.) comprehensively assess the needs of clients who request assistance;
- 2.) match individual needs with the interventions and recovery services that best suit their requirements, as well as the needs of their families and significant others;
- 3.) provide an appropriate array of specific treatment and recovery services along a sustained continuum of care for both the individual and his or her collaterals; and
- 4.) determine the outcome of specific treatment and recovery services.

MEMBERS OF THE MULTIDISCIPLINARY ADDICTION TREATMENT TEAM

The complexities of treatment planning for clients and their families involved in opioid dependence treatment often require a *multidisciplinary addiction treatment team*, of which the composition varies with the resources and the population being treated. The multidisciplinary addiction treatment team could consist of any combination of the following professionals:

- A physician trained in addiction medicine who manages the client's physical withdrawal symptoms and provides medical stabilization. He or she also conducts detailed evaluations of the client, monitors medications and provides needed substance abuse interventions when indicated.
- Non-physician medical staff members, such as a registered nurse, nurse practitioner and physician's assistant, who administer medications, assist in medical evaluations, maintain records and facilitate referrals for medical and psychiatric treatments.
- Non-addiction trained physician that monitors and treats the client's unrelated health concerns (if not being solely treated by the aforementioned physician).
- A pharmacist or pharmacy assistant who dispenses and sometimes administers medications, orders controlled substances, maintains records and consults with program staff on all aspects of the client's care, particularly drug interactions.
- Non-medical professional staff members, such as a case coordinator, social worker, psychologist, vocational and educational specialist, who provide a range of bio-psycho-social-spiritual services, including counseling and case management, psychotherapy and family therapy, psychological testing and evaluation, health education and vocational skills assessment and training.
- A certified or licensed addiction counselor or specialist who provides bio-psycho-social-spiritual therapy and works with the client to prevent relapse. The addiction counselor also helps the client understand the behavioral and cognitive changes resulting from substance abuse.
- A mental health professional, such as a psychiatrist or psychologist, who provides the necessary services for a co-occurring disorder.
- A certified or licensed family therapist who works with the family and significant others of the opioid dependent.
- Representatives of the criminal justice system, such as a probation or parole officer, who monitor the performance of the client's treatment in relation to fulfilling the mandates of the court system. Representative of the criminal justice system could administer periodic drug tests. More information regarding drug tests and opioids is located in *Appendix E: Drug Test Information* in this manual.
- Non-treatment and administrative staff members, such as an office manager, clerical staff, receptionist and secretary, who often provide information to the multidisciplinary addiction treatment

team. The responsibilities of these team members include operational management, billing, receipt of payments, review of records, observation of client interactions and telephone coverage.

- Security personnel who ensure the safety and well-being of clients and staff at the treatment location.

The multidisciplinary addiction treatment team may take many forms, ranging from members of a common treatment team within the same facility to geographically separated independent practitioners. As such, coordinated care combines the goals of the various involved parties and service providers to ensure the optimal level of care is being offered to the client at each stage of recovery. In order to be effective, members should have common treatment philosophies and goals, as well as have rapid access to one another.

The responsibility to monitor each of the client's treatment services does not fall onto one individual, but rather, it equally belongs to each member of the multidisciplinary addiction treatment team. Each member must continuously and effectively communicate to the other members of the team any relevant information regarding the client's treatment. However, in order to do this, a confidentiality release form must be signed by the client explicitly granting permission for each member of the team to discuss the client with designated individuals. *A Sample Confidentiality Release Form is located in Appendix F of this manual.*

An effective relationship with a client's multidisciplinary addiction treatment team will often require extra communication from the counselor since most addiction treatment services are organized around bio-psycho-social-spiritual therapy. For this reason, addiction counselors often assume the role of case manager and coordinate regular communication among all members of the team. To help facilitate this communication, please feel free to use the *Sample Client Update Report* located in Appendix G in this manual. This form is a convenient way to keep the multidisciplinary addiction treatment team abreast of the client's progress and of any new developments related to his or her treatment.

OUTSIDE OF THE MULTIDISCIPLINARY ADDICTION TREATMENT TEAM

Outside of the multidisciplinary addiction treatment team, there are other contributing factors for a healthy recovery. Most often, clients will at least consider participation in a twelve step or other support program, such as Narcotics Anonymous (NA) or Rational Recovery. However, the stigma of medication-assisted opioid dependence treatment with buprenorphine may be an issue for some clients.

Even though NA has no official opinion on prescribed medications, they do have a stance on how members taking medications such as buprenorphine can participate in meetings. A newly released brochure states the following:

Because NA is a program of complete abstinence, groups do sometimes limit the participation of members on drug replacement to ensure the clarity of the NA message. Yet we must balance this limited participation with the idea that membership in NA comes with a desire to stop using, not abstinence...Each group is autonomous, and a group's conscience will ultimately determine the level of participation of those on drug replacement. Some groups may decide to encourage those on drug replacement to serve as coffee or tea makers, or as a clean-up person, instead of holding leadership positions. These commitments may encourage a desire for complete abstinence through allowing these members to feel a part of NA.^{lxx}

To be clear, NA is not prohibiting members who take medications such as buprenorphine from participating in meetings. However, some independent and autonomous chapters may elect to limit the participation of such members. This issue may be difficult for some clients to understand, especially if participation in NA is being encouraged. Addiction or other helping professionals need to develop an effective approach with which they feel comfortable to counsel clients on this topics. For example, some professionals might recommend that clients do not disclose their medical history or medications they are taking. Also, some ad-

diction professionals might recommend participation in an alternative support group, such as Rational Recovery or SMART Recovery, that typically do not hold the same opinions as NA. Regardless, addiction and other helping professionals need to help their clients realistically understand the environment of the various support groups available in their area and evaluate the best support group for their needs.

In addition to outside support groups, the client's family members, friends, loved ones and co-workers can all positively impact the recovery process if integrated properly. Often times, significant others in the client's life are neglected in the treatment process and need to heal themselves from the damage that has been caused to them throughout the client's addiction. Many opioid treatment programs incorporate a family/concerned persons program and educate such individuals about opioid dependence. These programs also encourage families and friends to become involved with AL-ANON or NARC-ANON, support groups designed specifically for families and friends of addicted persons, and sponsors family discussion forums that focus on the adjustments that come following the client's discharge and during ongoing recovery. Addiction is considered a family disease and encouraging positive support from the people who matter most to the client can have lasting benefits to the recovery process.



DEFINING EXPECTATIONS OF PHYSICIAN, COUNSELOR AND CLIENT

All coordinated care is focused around the identified needs of the client and is agreed upon by all involved in the treatment plan. Ideally, the identification of the roles and responsibilities of each party and the method of care is clearly delineated and defined as the process begins. However, the expectations of each member of the treatment team are not always clearly explained. As a result, communication among the parties is obstructed and the treatment process breaks down. The following sections outlines the expectations during medication-assisted treatment with buprenorphine for each party: the physician, the counselor and the client.

EXPECTATIONS OF THE PHYSICIAN

The medical system has physical health as its primary goal. In this system, the physician may focus on alleviating the discomforts of withdrawal via treatment with buprenorphine and helping the client maintain complete abstinence from illicit opioids. The physician is expected to do this by:

- conducting a thorough screening and assessment, independent of the one performed by the counselor, and diagnosing opioid dependence;
- educating the client about all of his or her medical options for treatment, including buprenorphine, and deciding with the client the best treatment approach;
- scheduling and enforcing regular appointments with the client, monitoring the effectiveness and safety of current dosing schedules and adjusting them, if necessary;
- monitoring and treating any other medical conditions the opioid dependent may have;
- maintaining communication with the counselor and providing updates from each appointment with the client; and
- leaning on the other members of the multidisciplinary addiction treatment team for advice about the client's continuing care.

EXPECTATIONS OF THE COUNSELOR

While an addiction counselor maintains an important role in addiction treatment, it is important that he or she does not operate outside the scope of practice as defined by the profession and individual states. The National Certification Commission (NCC), the independent certifying body under NAADAC, the Association for Addiction Professionals, has clearly outlined the expectations and competencies of an addiction counselor that can be easily referred to for guidance when treating opioid dependent clients. These expectations have been divided into eight skill groups:

- 1.) Determine the client's suitability for substance abuse treatment during the screening and assessment process.
- 2.) Interpret the information gained during the screening and assessment process with the client and determine the areas that need to be addressed during treatment.
- 3.) Contribute to developing an individualized treatment plan for the client, while considering the needs and desires of the client.
- 4.) Provide bio-psycho-social-spiritual treatment to the client and facilitate the changing of his or her dysfunctional attitudes, beliefs and behaviors that have lead to addiction.
- 5.) Appropriately document each interaction with the client.
- 6.) Involve appropriate professionals from other entities that also need to provide services to the client, as well as manage these relationships and ensure appropriate treatment is being provided.
- 7.) Discontinue treatment of a client after he or she has been given appropriate treatment, information on supportive programs, resources and relapse prevention techniques.
- 8.) Understand and adhere to the laws and ethical standards that govern addiction professionals.^{lxxxii}

EXPECTATIONS OF THE CLIENT

The client is the single most important member of the multidisciplinary addiction treatment team. The client has more influence on the progression of his or her recovery than all the other members combined. With that said, the client can maximize the benefits of the treatment plan if he or she clearly understands what is expected of him or her. At the beginning of the therapeutic relationship, the following should be explained:

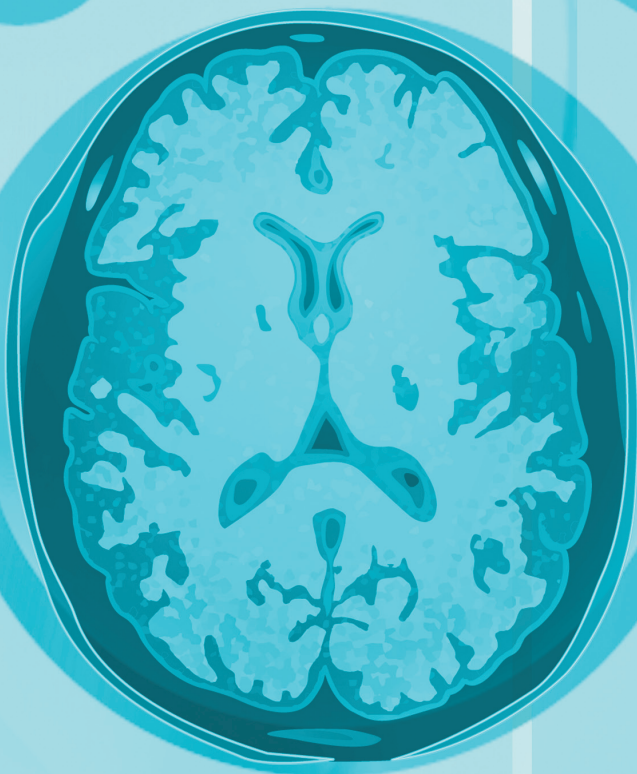
- The client is expected to keep and be on time to all scheduled appointments pertaining to his or her treatment.
- The client is expected to engage in the therapeutic process as much as possible and not rely on medication-assisted treatment to recover.
- The client is expected to follow and comply with each component of the mutually agreed upon treatment plan, including taking all prescribed medications as instructed.
- The client is expected to abstain completely from all illicit substances.
- The client is expected to report any problems or concerns about his or her treatment to the counselor and/or physician.

Summary: Opioid dependence treatment is most effective when it is holistic and coordinated by all members of the multidisciplinary addiction treatment team and the client.

A COMPONENT OF NAADAC'S LIFE-LONG LEARNING SERIES

Counseling Buprenorphine Clients

Section 7



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This section discusses the Stages of Change model and the key principles of Motivational Interviewing, as well as how to combine these approaches with medication-assisted treatment for opioid dependence.



SUPPLEMENTING MEDICATION-ASSISTED TREATMENT^{LXXIII}

Recovering from opioid dependence requires more than medication-assisted treatment. The importance of bio-psycho-social-spiritual therapy cannot be overstated and should always be used to supplement and enhance the benefits of medication-assisted treatment with buprenorphine. However, some clients may feel that once they have dealt with the physical aspects of opioid dependence and have received medication, they do not need additional bio-psycho-social-spiritual treatment. It is the role of addiction counselors and other helping professionals to convince clients of the necessity of continued bio-psycho-social-spiritual therapy to teach appropriate coping skills, correct dysfunctional thought process and beliefs and provide internal motivation to maintain recovery that they previously did not possess. Without this vital component of the recovery process, an opioid dependent client is more likely to return to dangerous and deteriorating use of opioids.

During bio-psycho-social-spiritual therapy, counselors and other helping professionals are primarily charged with guiding the client through the recovery process. Tasks of the counselor during this journey include:

- helping the client develop skills related to drug cessation;
- addressing triggers and cravings and developing relapse prevention skills;
- explaining to the client the disease of addiction and the destructive behaviors and thinking associated with the disease;
- helping the client understand recovery from addiction is not simply a matter of will power;
- exploring and dealing with intense emotions that perhaps contributed to the addiction;

- addressing previously ignored responsibilities;
- encouraging the client to work with his or her family members and significant others to heal the damage created during his or her addiction to opioids;
- resuming optimal health and hygiene that has been neglected during the addiction;
- encouraging the client to discard drug paraphernalia;
- making amends with those persons wronged by the disease of addiction; and
- replacing and engaging in healthy alternative recreational activities.

It is important for the counselor to remember that changing the behaviors of an opioid dependent individual is neither easy nor immediate. The client's life is often out of control, and the transition from active drug use to recovery via buprenorphine treatment is a major lifestyle change. Clients may be resistant to change at first, and the counselor can contribute to the resistance if not responded to appropriately. Counselors should try to incorporate these approaches when counseling clients treated with buprenorphine:

- **Be flexible.** Clients may be late for appointments, frequently reschedule or fail to show up at all. Applying rigid standards and expressing disapproval may prompt clients to feel negatively about counseling, and they may choose to avoid appointments or discontinue bio-psycho-social-spiritual counseling completely.
- **Set realistic expectations.** Opioid dependent clients have already taken many steps to address their opioid dependence and have already achieved a significant accomplishment. An immediate major change in the client's general lifestyle may be an unrealistic expectation and could deter future progress.

- **Be motivational, not confrontational.** Instead, it is better to develop discrepancy (to be discussed in greater detail later in this section). Direct and harsh confrontation is more likely to drive a client out of treatment than to remain in treatment.
- **Be accepting and non-judgmental.** Opioid dependence, and all addiction for that matter, is associated with many unappealing behaviors, such as lying, stealing and unreliability. Some of these behaviors may continue during treatment. It is better to view these behaviors as symptoms of the dependence and not be too critical or judgmental because of them.



ASSESSING READINESS TO CHANGE

When a counselor or other helping professional first interacts with an opioid dependent client, the client may not be ready to stop using all illicit drugs and alcohol. Even clients expressing the desire to stop using will have ambivalent feelings about the change process. In order for clients to experience sustained behavior change, they must voluntarily desire for their lives to be different. Typically, people change voluntarily only when:

- they become interested in or concerned about the need for change.
- they become convinced that the change is in their best interests or will benefit them more than cost them.
- they organize a plan of action that they are committed to implementing.
- they take the actions that are necessary to make the change and sustain the change.^{lxxiv}

However, clients enter treatment at varying stages of readiness for treatment and openness to counseling. Some are eager, and some are looking for the door as soon as they sign in. As your own experience has shown, some treatment interventions are better suited for particular types of clients, while others are best used at specific time periods during the treatment process.

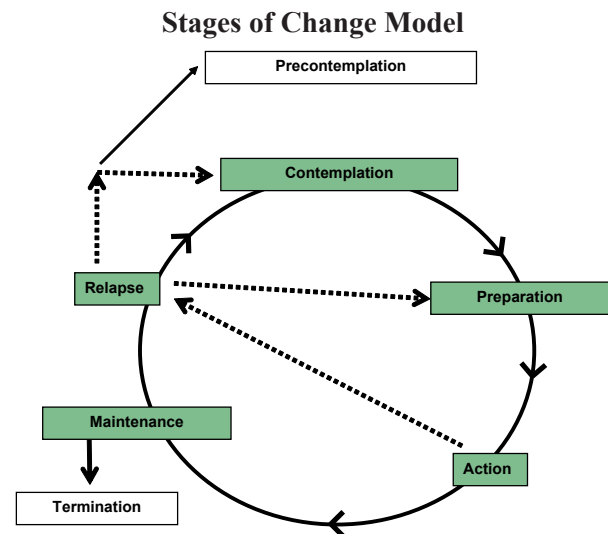
James Prochaska and Carlo DiClemente's *Trans-theoretical Model of Change*, also known as the *Stages of Change Model*, can be extremely helpful for counselors when considering various treatment options for a client. The Stages of Change model identifies six independent stages of behavior and thinking that clients can experience during the treatment process. By identifying which stage of change a client is currently in, a counselor or other helping professional can better understand the treatment needs of that client and which treatment options are most appropriate.

- **precontemplation** – The client is not ready to change. He or she has little or no thought or interest in changing the behavior.
- **contemplation** – The client is thinking about change. He or she is assessing the risks and benefits of changing.
- **preparation** – The client is ready to change. He or she is getting ready to make the change and tests the waters by creating a plan of action.
- **action** – The client is making the change. He or she is incorporating the action plan.
- **maintenance** – The client is sustaining the change. He or she continues the action plan until the change has been integrated into the client's lifestyle.
- **relapse** – The client slips back into previous behavior. He or she must reenter the cycle of change at a point that is appropriate given the new level of readiness to change.^{lxxv}

“In a representative sample across more than fifteen high-risk behaviors, it was found that fewer than 20% of a problem population are prepared for action at any given time. And yet, more than 90% of behavior change programs are designed with this 20% of the population in mind.”^{lxxvi}

- Prochaska and DiClemente, 1994

Sustained behavior change requires self-control and strength, as well as the ability to cope with challenges and barriers that can undermine successful action. Change in any one area requires focus, energy and skills, such as motivation or readiness to complete each stage. However, it is important to remember that clients can cycle through these stages, skip stages and/or regress to an earlier stage even after progress has been made in treatment before achieving recovery. The following chart illustrates the cyclical nature of the Stages of Change model.^{lxxvii}



Source: DiClemente, C.C., D. Schlundt, and L. Gemmell, 2004



IGNITING INTERNAL MOTIVATION TO CHANGE

Although many opioid dependent clients come to treatment for external reasons and pressures, internal motivation to change is critical for long-term success. Contrary to popular belief, clients are not unmotivated; they are just motivated to engage in behaviors that others consider harmful and problematic, or they are not ready to begin behaviors that we think would be helpful.^{lxxviii} Typically, clients do not experience sustained behavior change when:

- they are not convinced of the problem or the need for change; they are unmotivated.
- they are not committed to making a change; they are unwilling.
- they do not have an actual or perceived ability to make a change; they are unable.^{lxxix}

Motivation, willingness and ability to change all belong to the client. However, they can be enhanced or hindered by interactions with others and events in the life-context of the client. The tasks of the counselor and other helping professionals are to help the client find the internal motivation to change, make the decision to change and take the action needed to travel the road of recovery.

One clinically-proven approach to ignite internal motivation in a client is by utilizing *Motivational Interviewing (MI)* created by William Miller and Stephen Rollnick.^{lxxx}

Motivational Interviewing is a method of communication that is focused on the client's concerns and perspectives and works to enhance the client's internal desire, willingness and ability to change by exploring and resolving his or her co-existing opposite feelings about changing.

An entire college course can be taught on Motivational Interviewing (MI), so only the fundamental concepts will be addressed. There are four basic principles of MI:^{lxxxi}

- *Express Empathy:*
 - Acceptance facilitates change.
 - Skillful reflective listening is fundamental.
 - Ambivalence is normal.
 - Understand the client's perspective.
- *Develop Discrepancy:*
 - The client rather than the counselor should present the arguments for change.
 - Change is motivated by a perceived discrepancy between present behavior and important personal goals or values.
- *Roll with Resistance:*
 - Avoid arguing for change.
 - Resistance is not directly opposed.
 - New perspectives are invited but not imposed.
 - The client is a primary resource in finding answers and solutions.
 - Resistance is a signal to respond differently.
- *Support Self-Efficacy:*
 - A client's belief in the possibility of change is an important motivator.
 - The client, not the counselor, is responsible for choosing and carrying out changes.
 - The counselor's own belief in the client's ability to change becomes a self-fulfilling prophecy.

Mastering these techniques can greatly enhance the therapeutic experience for the client and better support his or her recovery. However, becoming adept at Motivational Interviewing takes practice. It is strongly encouraged that counselors and other helping professionals seek outside training to better understand how to incorporate MI into your practice. For more information on the use of MI, visit www.ncadi.samhsa.gov and/or review TIP 35: Enhancing Motivation for Change in Substance Abuse Treatment.



COMBINING DIFFERENT INTERVENTIONS

Motivation and the process of change are best viewed as the client's readiness to engage in and complete each component of the Stages of Change model. Because Motivational Interviewing relies heavily on the Stages of Change model, it can be used throughout the process of change and integrated with more action-oriented approaches, such as buprenorphine. The challenge becomes how to integrate our interventions with the process of change so the client can advance and support sustained change.

At each Stage of Change, there are associated tasks that must be completed before the client can advance in the recovery process. This section focuses on these tasks, which techniques of Motivational Interviewing are most useful at each Stage and how including pharmacotherapies, such as buprenorphine, into the treatment plan options can encourage the client to initiate and sustain long-term behavior change.

PRECONTEMPLATION

During precontemplation, the client is unaware/under aware of the problem behavior, does not see a need to change, is demoralized, feels hopeless, looks to change his or her environment and has little or no consideration of changing the current behavior in the foreseeable future. The main task of the precontemplation stage is to raise ambivalence and increase the perception of risks and problems of the current behavior. The counselor or other helping professional can assist with these tasks by:

- providing the client with factual information;
- exploring with the client the meaning of events that brought him or her to treatment; and
- exploring the positives and negatives of using opioids.^{lxxxii}

At this Stage of the process, clients could be defensive, so counselors should remember to “roll with resistance” by:

- avoiding arguing for change;
- not directly opposing the resistance; and
- using the resistance as a signal to respond differently.

Further, counselors and other helping professionals should “express empathy” by trying to understand the client's feelings without judging, criticizing or blaming. Skillful reflective listening is fundamental, and remember, acceptance facilitates change.^{lxxxiii}

Unfortunately, if the client does not believe that he or she has a problem with opioids, then they probably will not be open to taking buprenorphine. However, knowing that there is medications that could help with the physical withdrawal symptoms of opioid dependence could help create an interest in treatment, offer a new way to reach their goals, arouse concern about their condition and offer hope to those discouraged about change.^{lxxxiv}

CONTEMPLATION

During the contemplation stage, the client is aware of his or her dependency on opioids, is examining the current behavior and the potential for change in a risk-reward analysis, is still ambivalent about changing and may feel hopeless about making a decision to change. The main tasks of the contemplation stage are to tip the decisional balance by evoking reasons for changing and risks of not changing, becoming more confident about his or her ability to change and making the decision to stop being dependent on opioids. The counselor or other helping professional can assist with these tasks by:

- talking with the client about his or her sense of self-efficacy, which is the belief that the client can influence his or her own thoughts and behaviors and expectations regarding treatment;
- summarizing the client's self-motivational statements; and
- continuing to explore with the client the positives and negatives of continued opioid use and dependence.^{lxxxv}

At this Stage of the process, the counselor should work to “develop discrepancy” by helping the client think through the risks of his or her continued opioid abuse and the benefits to be gained from changing. Remember, change is motivated by a perceived discrepancy between the present behavior and important goals of values held by the client. The counselor can use Motivational Interviewing to help this discrepancy become more apparent.^{lxxxvi}

Utilizing medication-assisted treatments, such as buprenorphine, at the contemplation stage could promote the client’s consideration of possible recovery and support the notion that change is possible, increase the perception of the severity of the problem and decrease helplessness to change. The client could also view medication as another tool to help him or her achieve recovery by eliminating the fear of experiencing intense opioid withdrawal symptoms.^{lxxxvii}

PREPARATION

The preparation stage is where the client makes a commitment to take action to change his or her dependency on opioids and develops a plan and strategy to change. The client also considers resources needed to make the change, as well as begins to take the initial steps to change the behavior. The main tasks of the preparation stage is to increase his or her commitment to discontinue the addiction, determine the best course of action to take in seeking change and then make a plan. The counselor or other helping professional can assist with these tasks by:

- offering the client a menu of options for change or treatment;
- negotiating with the client a treatment plan and behavioral contract;
- helping the client to identify and lower barriers he or she may have to changing;
- helping the client enlist support from family, friends, co-workers and significant others; and
- encouraging the client to publicly announce his or her plans to stop using opioids and change his or her behavior.^{lxxxviii}

At this Stage of the process, the counselor should “support self-efficacy” by instilling confidence in the client that he or she is capable of living a life without opioids. This stage is extremely important for initiating change in the client. If the client does not believe in his or her ability to change, then he or she is unlikely to continue to the action stage.^{lxxxix}

During the preparation stage, pharmacotherapies, such as buprenorphine, can be incorporated into the client’s treatment plan. Determining an appropriate schedule and regimen can promote the client’s commitment to the plan and set a timeframe for initiating the plan, as well as reduce anxiety of opioid withdrawal symptoms usually associated with discontinuing illicit opioids.^{xc}

ACTION

During the action stage of change, the client takes steps to stop being dependent on opioids and begins creating a new behavior pattern. The main tasks associated with the action stage are implementing the strategies for change, revising the plan when needed, sustaining the commitment to change even when faced with difficulties and cravings and becoming increasingly more confident about his or her ability to have a fully-functioning life without opioids. The counselor or other helping professional can assist with these tasks by:

- supporting the client with a realistic view of change through small steps;
- helping the client identify high-risk situations for him or her and developing appropriate coping strategies to handle each;
- helping the client find new reinforcers of positive change; and
- helping the client to access sufficient family and/or social support.^{xcii}

The counselor should continue to “support self-efficacy” during the action stage by affirming the client that he or she is doing well, applauding his or her accomplishments and encouraging him or her to continue. Supporting the client’s initial success and his or her ability to change can elicit motivation and drive to continue the process. The counselor should also reinforce planning ahead and building the client’s confidence to meet those challenges.^{xcii}

The positive effects gained from taking pharmacotherapies, such as buprenorphine, can reinforce the initial successes of treatment during the action stage. In addition, the commitment to taking the medication supports the continued commitment to change and decreases some of the negative effects of abstaining from illicit opioids.^{xciii}

MAINTENANCE

The maintenance stage is where the client is able to sustain the new behavior pattern for an extended period of time, continues to make positive changes in other areas of his or her life and develops new coping skills to respond to stressors and changing environments. The main tasks of preparation are identifying and using strategies to prevent relapse, resolving associated problems, sustaining behavior change across a wide range of situations and avoiding going back to the old pattern of behavior and opioid use. The counselor or other helping professional can assist with these tasks by:

- helping the client identify and try drug-free sources of pleasure;
- maintaining a supportive contact with the client;
- encouraging the client to develop a “fire escape” plan that should be utilized during uncomfortable, potentially dangerous situations that could lead him or her to relapse (*Please refer to Appendix H: Triggers and Cravings* in this manual for more information on this topic.); and
- working with the client to set new short-term, as well as long-term goals.^{xciv}

As with the preparation and action stages, the counselor should continue to “support self-efficacy” during the maintenance stage. Behavior change may not be firmly established until six months or more and continued support and encouragement from the counselor is as important as ever.^{xcv}

Taking pharmacotherapies, such as buprenorphine, during the maintenance stage provides a foundation for nature reinforcers of change to take hold. Medication-assisted treatment can help prevent relapse, support stabilization and resolution of other problems during biopscho-social-spiritual therapy and create a growing sense of efficacy to manage sustained abstinence from illicit opioids.^{xcvi}

RELAPSE

During relapse, the client slips back to using opioids or considers using opioids. The main tasks of the relapse stage is understanding that relapse should be viewed as a learning experience and not a failure, reentering the Stages of Change without becoming stuck or demoralized, focus on his or her abilities and successes and reassesses his or her commitment to change. The counselor or other helping professional can assist with these tasks by:

- exploring with the client the meaning and reality of the relapse as a learning experience;
- explaining to the client the Stages of Change;
- encouraging the client to remain engaged in the process; and
- helping the client find alternative coping strategies.^{xcvii}

At this Stage of the process, the counselor should “express empathy” for the personal struggle and recognize the difficulties of abstaining from opioids. The counselor should “develop discrepancy” so that relapse becomes a learning experience that can be used to identify weaknesses in coping and relapse prevention strategies. Finally, and perhaps most importantly, the counselor should “support self-efficacy” for what the client has been able to accomplish thus far and reframe the relapse as a learning experience.^{xcviii}

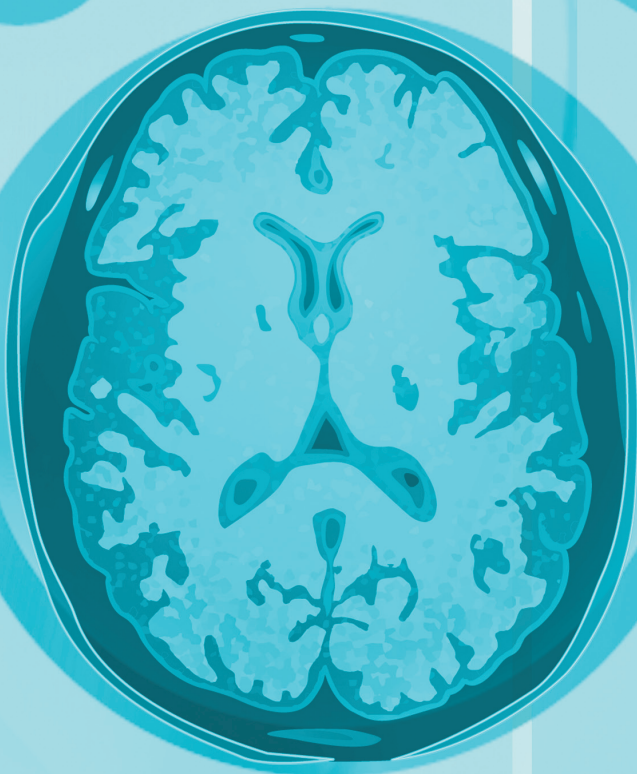
Even when relapse has occurred, medication-assisted treatment with buprenorphine can help reinforce commitment to change, as well as reduce severity of relapse. Because buprenorphine is a partial opioid agonist, it prevents other illicit opioids from having the desired effect. Experiencing this benefit of the medication once could provide the client with additional motivation to reenter the process of change and remain abstinent from illicit opioids.^{xcix}

Summary: Utilizing techniques from Motivational Interviewing can be extremely helpful for clients considering or taking medication-assisted treatments for opioid dependence at any Stage of Change.

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Program Review

Section 8



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This section allows the participant to apply the information presented during this educational seminar in the form of case studies.



IDENTIFYING THE STAGE OF CHANGE



For each of the following mini case studies, please divide into small groups and answer the corresponding questions for each client. When finished, please remove the six multi-colored index cards from your participant's packet.



Jen was first exposed to drugs at the age of ten by her older brother. She began to smoke pot regularly and first used opioids in the form of Percodan when she was 13. By the time she was a senior in high school, she was buying Oxy-

Contin on the streets, with the occasional experimentation of snorting heroin. Jen has been arrested several times for possession and has now been ordered into treatment by the court system or otherwise go to jail. She has struggled with control from time to time and can go for brief periods without using. However, strong cravings, intense withdrawal symptoms and a negative friend group inevitably return her to use. Jen is now motivated to engage in treatment, change her friend group and one day attend college.



Which Stage of Change do you feel Jen is in currently?

- ☐ Precontemplation ☐ Contemplation ☐ Preparation
☐ Action ☐ Maintenance ☐ Relapse

Do you feel Jen is a good candidate for medication-assisted treatment? Why or why not? _____



Dale has sold opioids most of his young adult life, but only within the past few years has he used them recreationally, particularly Percocet and Tramadol. Over time, he found himself using more and more, as well as needing to sell more to support his habit. He has begun shorting his customers

on money and drugs and is now fearful for his safety and experiencing intense opioid withdrawal symptoms. Dale called a friend he knew for help, and he referred him to an outpatient treatment clinic for an evaluation. Dale is at best unsure if he would like to enter treatment. He relies heavily on the income from his drug sales but is also weary of the lifestyle he has acquired. He is willing to keep the appointment he has scheduled for an assessment but is uncertain the direction he will go after the appointment.



Which Stage of Change do you feel Dale is in currently?

- ☐ Precontemplation ☐ Contemplation ☐ Preparation
☐ Action ☐ Maintenance ☐ Relapse

Do you feel Dale is a good candidate for medication-assisted treatment? Why or why not? _____



Max has been abusing alcohol and opioids, primarily painkillers, for over 15 years. Despite his many stints in rehab over the years, he has been able to maintain a steady job as the assistant manager of

a grocery store. He has previously been treated with methadone, but he often traded his take home doses for painkillers. Recently, he has begun to miss more work, and his wife is concerned that his use has increased. She has confronted him on this, along with several of his brothers. Max seems to be ready to look at quitting but is uncertain because of failed past attempts. He has agreed to an intake assessment with a local outpatient addiction treatment program and states he is “ready for care” now.



Which Stage of Change do you feel Max is in currently?

- ☐ Precontemplation ☐ Contemplation ☐ Preparation
☐ Action ☐ Maintenance ☐ Relapse

Do you feel Max is a good candidate for medication-assisted treatment? Why or why not? _____



Lynette graduated at the top of her class in college and has been a successful professor of English for the past 25 years at a local community college. After the birth of her last child, she experienced some mild to moderate back problems that have exacerbated over the past 20 years. She has tried a variety

of treatment regimens, including holistic and herbal medicine practice but to no avail. Recently while walking, she injured her ankle and was seen in the local ER where she was prescribed Percocet for the pain. Long after her ankle has healed, Lynette still continues to take Percocet every day, even though her physician recommends only taking it on “bad days.” This has been going on for over two years now, and she finds herself be-

coming more and more reliant on the medication. She is frustrated by her inability to just quit without experiencing the withdrawal symptoms and discomfort from not using the pain medication. Lynette is ambivalent about quitting and entering treatment for fear of being “discovered” as a user locally in her small community.



Which Stage of Change do you feel Lynette is in currently?

- ☐ Precontemplation ☐ Contemplation ☐ Preparation
☐ Action ☐ Maintenance ☐ Relapse

Do you feel Lynette is a good candidate for medication-assisted treatment? Why or why not? _____



Emmanuel was first prescribed Vicodin while recovering from back surgery as a result of an injury at his job as a construction worker. During his time off from work and the rehabilitation process, Emmanuel’s wife noticed that he was using more and more of the painkiller and becoming

less and less involved in rehabilitation. His physician readily supplied him with additional medication upon continued complaints of pain and discomfort. Emmanuel soon discovered that his prescriptions were not lasting for the duration they were intended, so he began seeking out street supplies to supplement his prescriptions. He has recently been arrested in an undercover police sting while attempting to buy OxyContin. Part of his pre-sentencing investigation and recommendation by the judge required Emmanuel to enter and complete treatment, as well as attend NA. While he does not want to lose his family or job, Emmanuel shows little interest in treatment and still feels he just needs his medication to maintain a positive lifestyle.



Which Stage of Change do you feel Emmanuel is in currently?

- ☐ Precontemplation ☐ Contemplation ☐ Preparation
☐ Action ☐ Maintenance ☐ Relapse

Do you feel Emmanuel is a good candidate for medication-assisted treatment? Why or why not? _____



Scott's heroin addiction began in high school when he was first introduced to IV use by a friend of his. Since that time he has been in and out of jail, treatment, methadone clinics and numerous other types of residential and outpatient programs. He has been successfully treated with methadone for the past six months but occasionally misses a dose due to the inconvenient dosing schedule. He currently is employed, likes his job and has a girlfriend. She is supportive of his efforts to change his life and even attends some treatment sessions with him.



Which Stage of Change do you feel Scott is in currently?

- ☐ Precontemplation ☐ Contemplation ☐ Preparation
☐ Action ☐ Maintenance ☐ Relapse

Do you feel Scott is a good candidate for medication-assisted treatment? Why or why not? _____



Talisa began using Lorcet after dental surgery for the removal of her four wisdom teeth. She got an infection, and the dentist prescribed the painkiller for her. She was uncomfortable at first using a powerful medication to control the pain but quickly changed her mind when she discovered its effectiveness. She is now uncomfortable with her regular and sometimes excessive use and wishes to stop completely. As a result, she called her psychiatrist for help and is now seeking treatment through him. She has not used any opioids in the past two weeks.



Which Stage of Change do you feel Talisa is in currently?

- ☐ Precontemplation ☐ Contemplation ☐ Preparation
☐ Action ☐ Maintenance ☐ Relapse

Do you feel Talisa is a good candidate for medication-assisted treatment? Why or why not? _____



Getting painkiller medication, such as OxyContin and Tylenol with codeine, was never a problem for Devarshi because his dad was a local physician and samples were always available for him to steal. He

had many conflicts with his father over this and at times was enabled by his father to avert his son's use of street supplies. In college, he began experimenting with injecting heroin and soon found himself preferring this to all other opioids. Devarshi was arrested several times for breaking and entering to support his addiction and would get more lenient sentences due to his father's influence. He entered and completed many residential treatment programs with little to no long-term success. He was recently in a car accident while intoxicated and critically injured his passenger. He is severely regret-

ful for his actions and wishes to turn his life around. He currently cannot fathom this idea of not using opioids again, but he sincerely does not want anymore bad things to happen.



Which Stage of Change do you feel Devarshi is in currently?

- ☐ Precontemplation ☐ Contemplation ☐ Preparation
☐ Action ☐ Maintenance ☐ Relapse

Do you feel Devarshi is a good candidate for medication-assisted treatment? Why or why not? _____



Sarah had been addicted to heroin since freshman year of college. After experiencing a near-fatal overdose, she completed an inpatient treatment program and is being maintained on methadone. She has tried to gradually reduce her methadone dose in an effort to eventually discontinue use; however, each time the

dose is reduced, her cravings and desire to use increase. She has recently began abusing her take-home doses of methadone and supplementing her high with her mother's prescription of Percocet.



Which Stage of Change do you feel Sarah is in currently?

- ☐ Precontemplation ☐ Contemplation ☐ Preparation
☐ Action ☐ Maintenance ☐ Relapse

Do you feel Sarah is a good candidate for medication-assisted treatment? Why or why not? _____



SOLIDIFYING LEARNED INFORMATION

Please list three things you learned during this training:

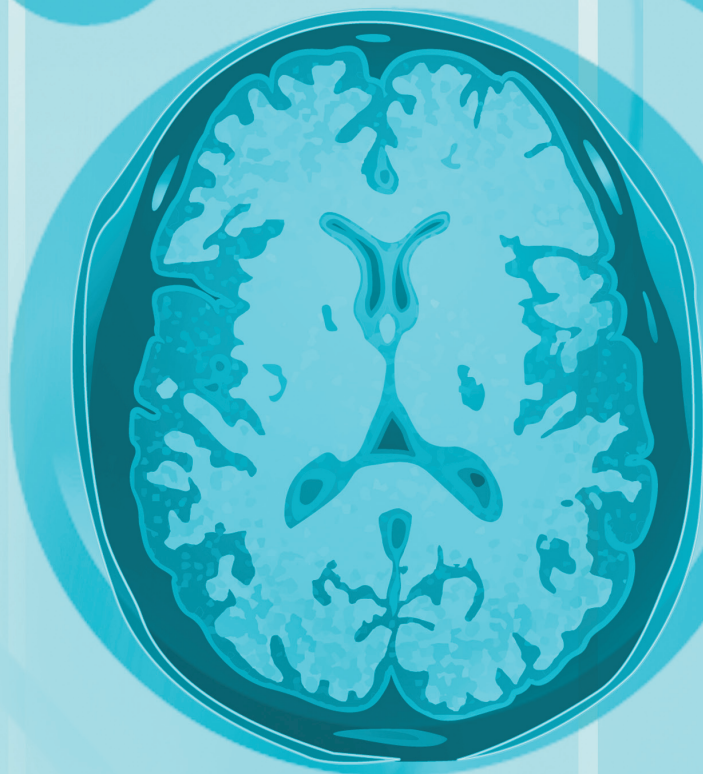
Please list three things you plan to implement into your practice as a result of this training:

Summary: Identifying which Stage of Change a particular client is in, among other factors, can help the multidisciplinary addiction treatment team evaluate the appropriateness of medication-assisted treatment for opioid dependence with buprenorphine.

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Appendices

Section 9



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APPENDIX A: COMMONLY USED TERMS

Slang	Medical
addict	addicted client, client with the disease of addiction
junkie, dope fiend	opiate addicted client, cocaine addicted client
clean urine	urine negative for illicit or non-prescribed drugs
dirty urine	urine positive for an illicit substance
drunk, smashed, bombed	alcohol intoxicated, intoxicated
crack head, pot head	cocaine intoxicated, THC abuse
la la land	intoxicated
street addict, hard-core addict	client with the disease of addiction
speed-balling	using heroin and cocaine
meth	methadone or methamphetamine
strung out	debilitated, intoxicated
cop/fix	obtain, purchase/dosed, took
hooked	addicted
kicking	withdrawal syndrome

APPENDIX B: CLINICAL OPIATE WITHDRAWAL SCALE (COWS)^c

For each item, circle the number that best describes the client's signs or symptoms. Rate on just the apparent relationship to opiate withdrawal. For example, if heart rate is increased because the client was jogging just prior to assessment, the increase pulse rate would not add to the score.

Client's Name: _____ Date and Time ____/____/____:____	
Reason for this assessment: _____	
Resting Pulse Rate: _____ beats/minute <i>Measured after client is sitting or lying down for one min.</i> 0 pulse rate 80 or below 1 pulse rate 81-100 2 pulse rate 101-120 4 pulse rate greater than 120	GI Upset: over last ½ hour 0 no GI symptoms 1 stomach cramps 2 nausea or loose stool 3 vomiting or diarrhea 5 Multiple episodes of diarrhea or vomiting
Sweating: over past ½ hour not accounted for by room temperature or client activity. 0 no report of chills or flushing 1 subjective report of chills or flushing 2 flushed or observable moistness on face 3 beads of sweat on brow or face 4 sweat streaming off face	Tremor observation of outstretched hands 0 No tremor 1 tremor can be felt, but not observed 2 slight tremor observable 4 gross tremor or muscle twitching
Restlessness Observation during assessment 0 able to sit still 1 reports difficulty sitting still, but is able to do so 3 frequent shifting or extraneous movements of legs/ arms 5 Unable to sit still for more than a few seconds	Yawning Observation during assessment 0 no yawning 1 yawning once or twice during assessment 2 yawning three or more times during assessment 4 yawning several times/minute
Pupil size 0 pupils pinned or normal size for room light 1 pupils possibly larger than normal for room light 2 pupils moderately dilated 5 pupils so dilated that only the rim of the iris is visible	Anxiety or Irritability 0 none 1 client reports increasing irritability or anxiousness 2 client obviously irritable anxious 4 client so irritable or anxious that participation in the assessment is difficult
Bone or Joint aches <i>If client was having pain previously, only the additional component attributed to opiates withdrawal is scored</i> 0 not present 1 mild diffuse discomfort 2 client reports severe diffuse aching of joints/muscles 4 client is rubbing joints or muscles and is unable to sit still because of discomfort	Gooseflesh skin 0 skin is smooth 3 piloerection of skin can be felt or hairs standing up on arms 5 prominent piloerection
Runny nose or tearing <i>Not accounted for by cold symptoms or allergies</i> 0 not present 1 nasal stuffiness or unusually moist eyes 2 nose running or tearing 4 nose constantly running or tears streaming down cheeks	<p style="text-align: right;">Total Score _____</p> <p>The total score is the sum of all 11 items. Score: 5-12 = mild; 13-24 = moderate; 25-36 = moderately severe; more than 36 = severe withdrawal</p> <p>Initials of person completing assessment: _____</p>

APPENDIX C: ABSTRACTS OF PIVOTAL CLINICAL TRIALS FOR BUPRENORPHINE

Johnson, R.E., Chutuape, M.A., Strain, E.C., Walsh, S.L., Stitzer, M.L., & Bigelow, G.E. (2000). A comparison of levomethadyl acetate, buprenorphine, and methadone for opioid dependence. *The New England Journal of Medicine*, 343(18), 1290-1297.

Background – Opioid dependence is a chronic, relapsing disorder with important public health implications.

Methods – In a 17-week randomized study of 220 patients, we compared levomethadyl acetate (75 to 115mg), buprenorphine (16 to 32mg) and high-dose (60 to 100mg) and low-dose (20mg) methadone as treatments for opioid dependence. Levomethadyl acetate and buprenorphine were administered three times a week. Methadone was administered daily. Doses were individualized except in the group assigned to low-dose methadone. Patients with poor responses to treatment were switched to methadone.

Results – There were 55 patients in each group; 51 percent completed the trial. The mean (+/-SE) number of days that a patient remained in the study was significantly higher for those receiving levomethadyl acetate (89+/-6), buprenorphine (96+/-4) and high-dose methadone (105+/-4) than for those receiving low-dose methadone (70+/-4, $P<0.001$). Continued participation in the study was also significantly more frequent among patients receiving high-dose methadone than among those receiving levomethadyl acetate ($P=0.02$). The percentage of patients with 12 or consecutive opioid-negative urine specimens was 36 percent in the levomethadyl acetate group, 26 percent in the buprenorphine group, 28 percent in the high-dose methadone group, and percent in the low-dose methadone group ($P=0.005$). At the time of their last report, patients reported on a scale of 0 to 100 that their drug problem had a mean severity of 35 with levomethadyl acetate, 34 with buprenorphine, 38 with high-dose methadone, and 53 with low-dose methadone ($P=0.002$).

Conclusions – As compared with low-dose methadone, levomethadyl acetate, buprenorphine and high-dose methadone substantially reduce the use of illicit opioids.

Johnson, R.E., Jaffe, J.H., & Fudala, P.J. (1992). A controlled trial of buprenorphine treatment for opioid dependence. *The Journal of the American Medical Association*, 267(20), 2750-2754.

Objective – To assess the efficacy of buprenorphine for short-term maintenance/detoxification.

Design – A randomized, double-blind, parallel group study comparing buprenorphine, 8mg/d, methadone, 60mg/d, and methadone 2mg/d, in a 17-week maintenance phase followed by an 8-week detoxification phase.

Setting – Outpatient facilities at the Addiction Research Center, Baltimore, Md.

Patients – One hundred sixty-two volunteers seeking treatment for opioid dependence.

Intervention – In addition to the medication, counseling using a relapse prevention model was offered but not required.

Primary Outcome Measures – Retention time in treatment, urine samples negative for opioids, and failure to maintain abstinence.

Results – Throughout the maintenance phase, retention rates were significantly greater for buprenorphine (42%) than for methadone, 20mg/d (20%, $P<0.04$); the percentage of urine samples negative for opioids was significantly greater for buprenorphine (53%, $P<0.001$) and methadone, 60mg/d (44%, $P<0.04$), than for methadone, 20mg/d (29%). Failure to maintain abstinence during the maintenance phase was significantly greater than methadone, 20mg/d, than for buprenorphine ($P<0.03$). During the detoxification phase, no differences were observed between groups with respect to urine samples negative for opioids. For the entire 25 weeks, retention rates for buprenorphine (30%, $P<0.01$) and methadone, 60mg/d (20%, $P<0.05$), were significantly greater than for methadone, 20mg/d (6%). All treatments were well tolerated, with similar profiles of self-reported adverse effects. The percentages of patients who received counseling did not differ between groups.

Conclusions – Buprenorphine was as effective as methadone, 60mg/d, and both were superior to methadone, 20mg/d, in reducing illicit opioid use and maintaining patients in treatment for 25 weeks.

Ling, W., Charuvastra, C., Collins, J.F., Batki, S., Brown, L.S., Kintaudi, P., et al. (1998). Buprenorphine maintenance treatment of opiate dependence: A multi-center, randomized clinical trial. *Addiction*, 93(4), 475-486.

Aims – To evaluate the safety and efficacy of an 8mg/day sublingual dose of buprenorphine in the maintenance treatment of heroin addicts by comparison with a 1mg/day dose over a 16-week treatment period. As a secondary objective, outcomes were determined concurrently for patients treated with two other dose levels.

Design – Patients were randomized to four dosage groups and treated double-blind.

Setting – Twelve outpatient opiate maintenance treatment centers throughout the United States.

Participants – Two hundred and thirty-nine women and 497 men who met the DSM-III-R criteria for opioid dependence and were seeking treatment.

Intervention – Patients received either 1, 4, 8 or 16mg/day of buprenorphine and were treated in the usual clinical context, including a 1-hour weekly clinical counseling session.

Measurement – Retention in treatment, illicit opioid use as determined by urine toxicology, opioid craving and global ratings by patient and staff. Safety outcome measures were provided by clinical monitoring and by analysis of the reported adverse effects.

Findings – Outcomes in the 8mg group were significantly better than in the 1mg group in all four efficacy domains. No deaths occurred in either group. The 8mg group did not show an increase in the frequency of adverse events. Most reported adverse effects were those commonly seen in patients treated with opioids.

Conclusions – The findings support the safety and efficacy of buprenorphine and suggest that an adequate dose of buprenorphine will be a useful addition to pharmacotherapy.

APPENDIX D: SAMPLE BLANK TREATMENT PLAN^{ci}

ASSESSMENT, EVALUATION, & TREATMENT PLAN

Patient Name: _____ Pic Code: _____
 Assessment: (Alcohol) _____ (Drug) _____
 Evidenced by the following signs & symptoms: _____

Anticipated Length of Treatment:			Counselor's Signature:		Date:
Problem #:	Dated Listed:	Date Resolved:	Specific Problems to be Addressed:	Objective(s):	Time-Linked Means to Achieve the Objective(s):
					1. Counselor's Signature 2. Patient's Signature
					1.
					2.
					1.
					2.
					1.
					2.
					1.
					2.
					1.
					2.

*adapted from Phoenix Center (1995)

APPENDIX E: DRUG TEST INFORMATION

Drug testing is a common practice used to determine if a client has consumed any illicit drugs and the efficacy of his or her treatment. Drug testing can also be an additional tool for the client to prevent drug use. Counselors should stress that drug testing is a standard component of addiction treatment and that it is in no way a surveillance tool to determine the client's level of honesty about his or her recent drug use, or lack thereof.

Some traditional addiction treatment programs enforce a “no tolerance policy” of drug use and will dismiss a client from treatment if he or she is determined to have used drugs. Since buprenorphine can be administered through a private physician's office, the prescribing physician and addiction treatment provider must come to a common understanding of how drug testing will be utilized and what the consequences to the client are for having a positive drug test.

Urine toxicology screenings are most commonly used to detect illicit drug use. However, samples can also be taken of the client's hair or blood for more accurate results. Below are a few of the nation's largest drug testing corporations:

Drug Testing USA
2191 Julian Ave., Ste. 2, Palm Bay, FL 32905
888.441.4599

Quest Diagnostics
3 Giralda Farms, Madison, NJ 07940
800.222.0446

Redwood Toxicology Laboratory, Inc.
P.O. Box 5680, Santa Rosa, CA 95402
800.255.2159
sales@redwoodtoxicology.com

Test Country
5663 Balboa Ave. Suite#: 430, San Diego, CA 92111
800.656.0745
info@testcountry.com

APPENDIX F: SAMPLE CONFIDENTIALITY RELEASE FORM

(For sample purposes only. Please check for agency and state-specific regulations.)

I, _____, authorize _____
 (Client Name) (Clinic, Counselor, or Doctor's Name)
 to disclose to _____ the copies of any
 (Name and Location of Person(s)/Organization to Receive Information)
 and all records and information which you may have in your possession. This includes all the
 transmission of information and data via verbal and electronic contact.

These records and information include, but may not be limited to:

- ☐ Hospital records, including that of attending nurses, physicians, health care personnel and technicians.
- ☐ Laboratory test results
- ☐ Medical examination results
- ☐ Medical opinions, diagnosis, progress notes, and recommendations
- ☐ Treatment plans and progress
- ☐ Description of treatment and prescriptions
- ☐ Notes of conversations, phone calls, memoranda or any type of communication concerning the overall treatment

I understand that the purpose of this disclosure is: _____

This authorization expires on: _____, or when
 _____, is no longer providing me with services.

I understand that my records are protected under Federal regulations and cannot be disclosed without my written consent unless otherwise provided for in the regulations. I also understand that I may revoke this consent at any time except to the extent that action has been taken in reliance on it.

Print Client Name _____ Date _____

Signature of Client _____

Date of Birth _____

Print Witness Name _____ Date _____

Signature of Witness _____

ATTENTION RECIPIENT – Notice Prohibiting Redisclosure

This information has been disclosed to you from the records protected by Federal confidentiality rules 42 C.F.R. Part 2). The Federal rules prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or as otherwise permitted by 42 C.F.R. Part 2. The Federal rules restrict any use of this information to criminally investigate or prosecute any alcohol or drug patient.

APPENDIX G: SAMPLE CLIENT UPDATE REPORT

Today's Date:	Prescriber's Name:	Prescriber's Address:	
SECTION 1: CLIENT IDENTIFICATION			
Last Name:	First Name:	Middle Name:	Date of Birth:
SECTION 2: CLIENT STATUS			
<i>(check only one)</i> <input type="checkbox"/> active <input type="checkbox"/> discharged <input type="checkbox"/> referred <input type="checkbox"/> in-patient <input type="checkbox"/> outpatient			
SECTION 3: CLIENT COMPLIANCE			
Admission Date:		<i>(check all that apply)</i> <input type="checkbox"/> no contact/abort <input type="checkbox"/> referred to different facility <input type="checkbox"/> relapsed <input type="checkbox"/> incarcerated <input type="checkbox"/> deceased <input type="checkbox"/> clinically compliant <input type="checkbox"/> not clinically compliant	
<input type="checkbox"/> continuing treatment <input type="checkbox"/> completed treatment <input type="checkbox"/> withdrew against program advice <input type="checkbox"/> medically compliant <input type="checkbox"/> not medically compliant			
SECTION 4: CLINICAL SUMMARY			
Notes:			
Clinician Name:			
Clinician Address:			
Clinician Phone Number:			
Clinician Signature:			

APPENDIX H: TRIGGERS AND CRAVINGS^{cii}

Triggers and cravings can be potentially the most difficult aspects of overcoming an addiction to opioids. An addiction counselor or other helping professional must be able to help a client identify, work through and disassociate his or her daily behavior from previous opioid dependence.

A trigger is a stimulus that has been repeatedly associated with the preparation for, anticipation of or use of drugs and/or alcohol. There are two types of triggers: internal and external. Examples of internal triggers are feeling or emotions, such as feeling afraid, confident, anxious, excited, inadequate, lonely, sad or bored. Examples of external triggers include anything from parties and liquor stores to payday, time of day or a familiar street. It is important to remember that triggers will affect a client's brain and cause cravings even though the client has stopped using opioids. It takes time and significant behavior change before a client can resist a trigger and not relapse.

Craving can be described as having a strong desire for something, such as using opioids. During a day, a client in recovery from opioid dependence can experience several cravings, each of which he or she must identify as such, redirect his or her thoughts to more healthy behaviors and resist relapsing. This feat can be very difficult to accomplish, especially early in the recovery process.

Triggers and cravings are interconnected and should be addressed by the addiction counselor or other helping professional together. Often, a client will interact with a trigger, which will lead to a thought of opioid use, which then leads to a craving to use opioids. The client will now have to decide to work through the craving or to relapse. The key to dealing with this process is to not allow for it to start, meaning the client needs to develop the skills to stop the thoughts that are elicited by a trigger so he or she can prevent it from building into a craving.

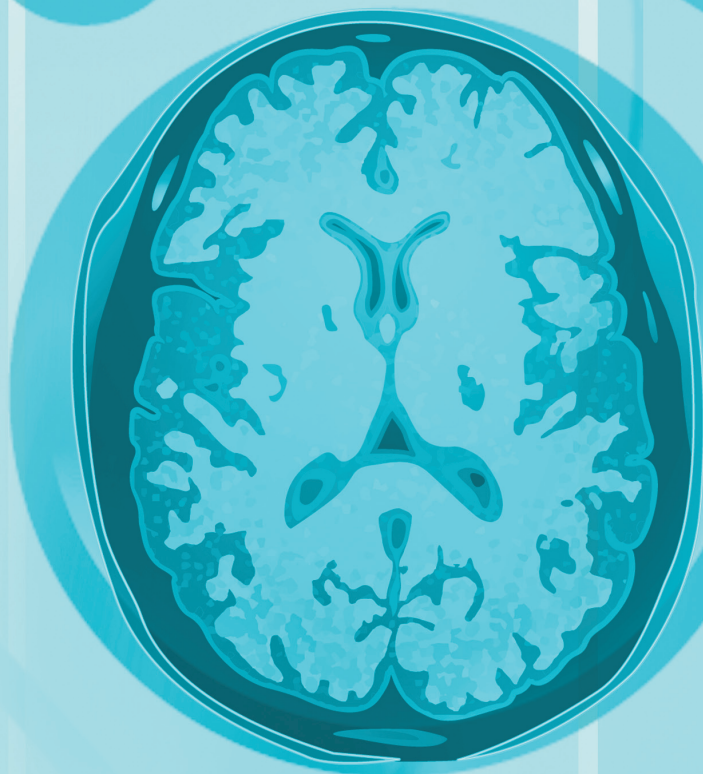
A client can interrupt the trigger/craving process by invoking one or more of the following techniques:

- visualizing something else when thoughts of opioid use begin;
- wearing a rubber band around the wrist and snap it when thoughts of opioid use begin;
- taking several slow, deep breathes to relax; and/or
- calling someone else to verbalize your thoughts.

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Resources

Section **10**



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ADDICTION AND OPIOID DEPENDENCY RESOURCES

Alcoholics Anonymous (AA) World Services

P.O. Box 459
New York, NY 10163
Phone: 212.870.3400
Web: www.alcoholics-anonymous.org

American Academy of Addiction Psychiatry (AAAP)

345 Blackstone Blvd., 1st Floor- Weld
Providence, RI 02906
Phone: 401.524.3076
Fax: 401.272.0922
Email: information@aaap.org
Web: www.aaap.org

American Association for the Treatment of Opioid Dependence (AATOD)

225 Varick Street, 4th Floor
New York, NY 10014
Phone: 212.566.555
Fax: 212.366.4647
Email: info@aatod.org
Web: www.aatod.org

American Society of Addiction Medicine (ASAM)

4601 N. Park Avenue, Upper Arcade #101
Chevy Chase, MD 20815
Phone: 888.362.6784
Fax: 301.656.3815
Email: email@asam.org
Web: www.asam.org

Join Together

715 Albany Street, 580-3rd Floor
Boston, MA 02118
Phone: 617.437.1500
Fax: 617.437.9394
Email: info@jointogether.org
Web: www.jointogether.org

NAADAC, the Association for Addiction Professionals

1001 N. Fairfax Street, Suite 201
Alexandria, VA 22314
Phone: 703.741.7686
Fax: 703.741.7698
Email: naadac@naadac.org
Web: www.naadac.org

Narcotics Anonymous (NA)

P.O. Box 9999
Van Nuys, CA 91409
Phone: 818.773.9999
Email: fsmail@na.org
Web: www.na.org

National Addiction Technology Transfer Center (NATTC)

5100 Rockhill Road
Kansas City, MO 64110
Phone: 816.482.1200
Fax: 816.482.1101
Email: no@nattc.org Web: www.nattc.org

National Alliance of Advocates for Buprenorphine Treatment (NAABT)

P.O. Box 333
Farmington, CT 06034
Fax: 860.269.4391
Email: MakeContact@naabt.org
Web: www.naabt.org

National Clearinghouse for Alcohol and Drug Informa- tion (NCADI)

Phone: 800.729.6686
Español: 877.767.8432
TDD: 800.487.4889
Web: www.ncadi.samhsa.gov

National Council on Alcoholism and Drug Dependence, Inc. (NCADD)

22 Cortlandt Street, Suite 801
New York, NY 10007-3128
Phone: 212.269.7797
Fax: 212.269.7510
Email: national@ncadd.org
Web: www.ncadd.org

National Institute on Drug Abuse (NIDA)
6001 Executive Boulevard, Room 5213
Bethesda, MD 20892-9561
Phone: 301.443.1124
Web: www.nida.nih.gov

Rational Recovery
P.O. Box 800
Lotus, CA 95651
Phone: 530.621.2667
Web: www.rational.org

SMART Recovery
7537 Mentor Avenue, Suite 306
Mentor, OH 44060
Phone: 866.951.5357
Fax: 440.951.5358
Email: info@smartrecovery.org
Web: www.smartrecovery.org

Substance Abuse and Mental Health Services Administration (SAMHSA)
1 Choke Cherry Road, Room 8-1054
Rockville, MD 20857
Phone: 240.276.2130 (Office of Communications)
Web: www.samhsa.gov
Web: buprenorphine.samhsa.gov



NAADAC, THE ASSOCIATION FOR ADDICTION PROFESSIONALS

NAADAC, the Association for Addiction Professionals, is the largest membership organization serving addiction counselors, educators and other addiction-focused health care professionals, who specialize in addiction prevention, treatment, education and recovery support services. With 10,000 members and 46 state affiliates, NAADAC's network of addiction professionals spans the United States and the world. NAADAC's members work to create healthier individuals, families and communities through prevention, intervention, quality treatment and recovery support services.

Founded in 1972 as the National Association of Alcohol and Drug Abuse Counselors, NAADAC was created to represent the interests and concerns of substance abuse counselors. Since then, NAADAC has evolved as a professional membership organization. NAADAC's new name - NAADAC, the Association for Addiction Professionals - reflects the increasing number of tobacco, gambling and other addiction professionals who are active in prevention, intervention, treatment, research, education and recovery support services, as well as counselors, administrators, social workers, nurses and other helping professionals.

NAADAC promotes excellence in care by promoting the highest quality and most up-to-date, science-based services to individuals, families and communities. NAADAC does this by providing education, advocacy, clinical training and certification. Among the organization's national certification programs are the National Certified Addiction Counselor, Tobacco Addiction Credential, and the Masters Addiction Counselor designations. In the last eight years, NAADAC has credentialed more than 15,000 counselors, playing an important role in sustaining quality health care services and protecting the well being of the public.

NAADAC's members are powerful advocates on the front lines, providing care every day to those facing addiction. NAADAC's members provide treatment in a variety of settings: private and public treatment centers, hospitals, private practice, and community-

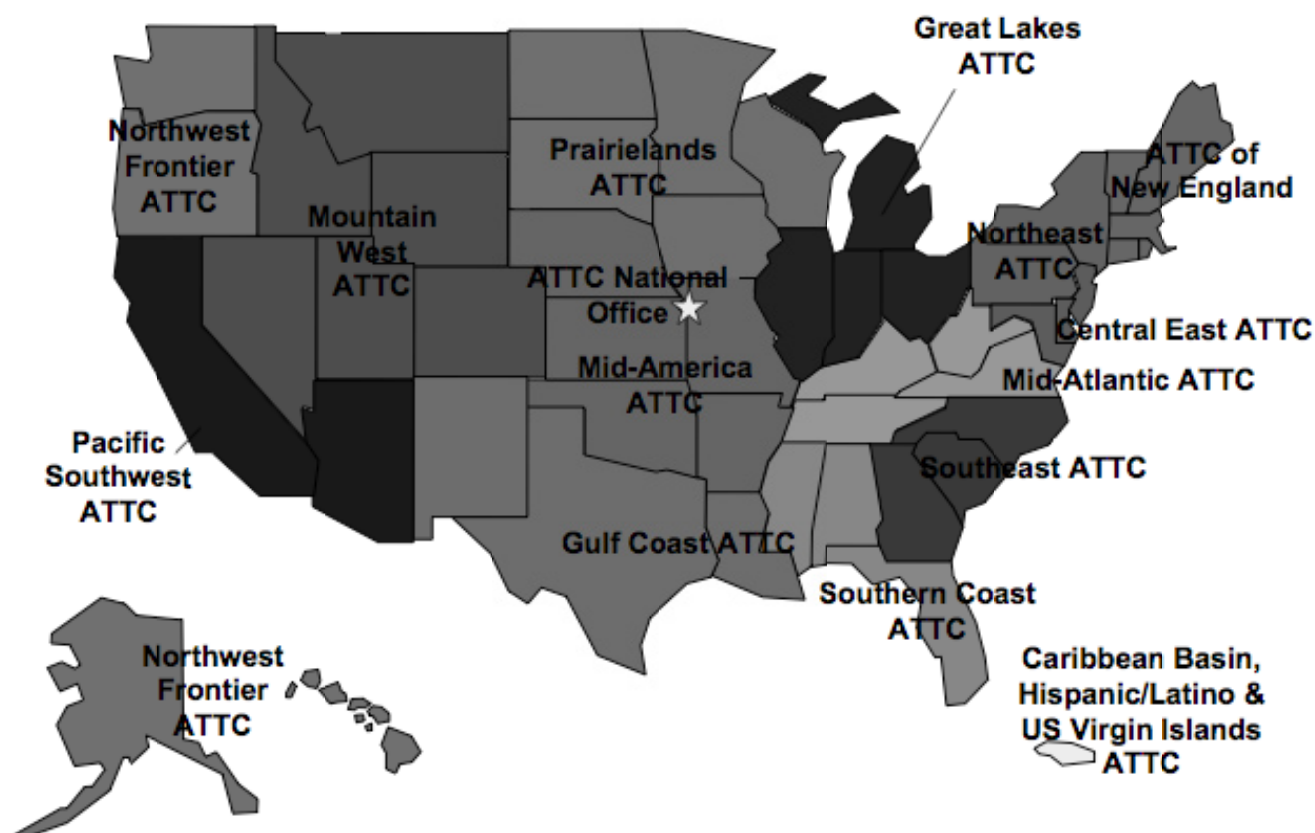
based behavioral health agencies. Science has shown that addiction is a brain disease that responds well to treatment. Any effective drug strategy must incorporate quality prevention, intervention, treatment and recovery support services. Research is providing a better understanding of how drugs, alcohol, tobacco, and other chemical substances affect the brain. NAADAC supports continued research and is a powerful advocate for policies improving the understanding of and financial support for prevention and treatment of addiction.

NAADAC is working to make treatment by nationally certified counselors available to every client who needs it. Through government relations and advocacy, membership and certification, NAADAC is on the cutting edge of the addiction profession.

For more information about NAADAC, the Association for Addiction Professionals, please visit www.naadac.org, email naadac@naadac.org or call 800.548.0497.



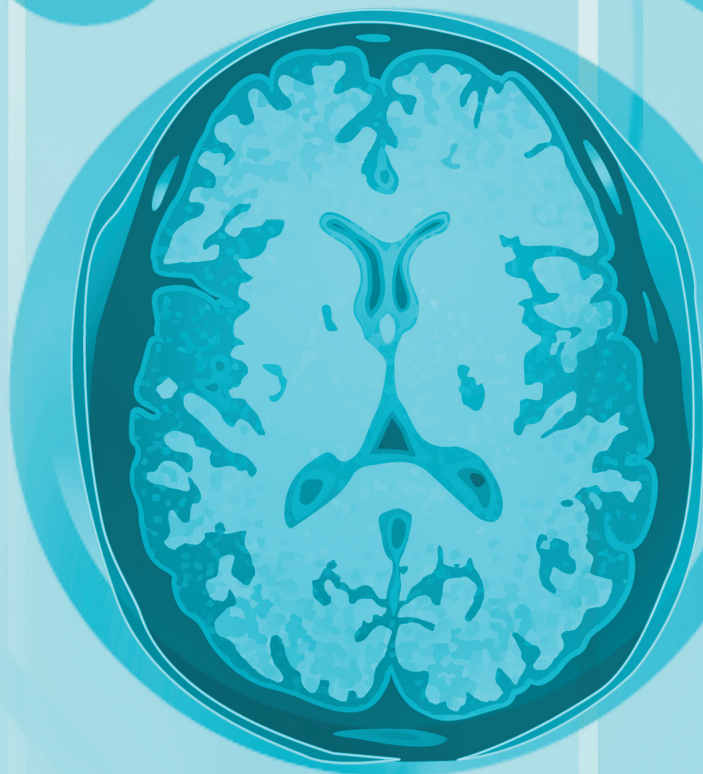
ADDICTION TECHNOLOGY TRANSFER CENTER (ATTC) REGIONAL MAP



Glossary

Section

11



GLOSSARY

A

abscess – an infection which produces pus

abstinence – the state of being without something, such as drugs or alcohol

abuse liability – the level of risk associated with a psychoactive chemical that potentially leads to repeated use and/or addiction

acute opioid withdrawal – the first phase of opioid withdrawal syndrome where an opioid dependent experiences effects that are the opposite of acute intoxication symptoms produced from opioids.

agonist – a type of psychoactive chemical that binds to a neuron and causes specific physiological and psychological effects

alcohol dependence – a disease characterized by the excessive consumption of and dependence on alcoholic beverages, leading to physical and psychological harm and impaired social and vocational functioning

analgesic – a psychoactive chemical that relieves pain

anesthetic – a substance which decreases sensitivity to pain

antagonist – a type of psychoactive chemical that binds to a neuron and prevents other neurotransmitters from binding to that neuron; a drug that blocks the effects of another substance

apnea – temporary cessation of breathing

assessment – the second phase of evaluation where the client is interviewed extensively to determine the most effective treatment plan after he or she is admitted to the program

B

benzodiazepine – family of depressants used therapeutically to produce sedation, induce sleep, relieve anxiety, muscle spasms, and to prevent seizures

biliary tract – gallbladder and the bile ducts

bradycardia – heart rate is slower than normal

Buprenex – a synthetically manufactured injectable opioid used for pain relief and illegal to use for opioid dependence treatment

buprenorphine – a synthetically manufactured long-acting opioid that is also commonly known as Buprenex, Subutex and Suboxone

C

ceiling effects – when a psychoactive chemical produces physiological and psychological effects but they do not continue to increase as the dose increases

central nervous system – the brain and the spinal cord

cerebrospinal fluid – the fluid that fills the areas surrounding the brain and spinal cord

clonidine – a prescription medication primarily used to lower blood pressure

codeine – a naturally occurring short-acting opioid that is also commonly known as Tylenol #3 or Empirin

contraindicated – specific circumstances when the use of certain treatments could be harmful

coordinated care – the continuous collaboration between all members of the multidisciplinary addiction treatment team to provide the best available individualized treatment services to a client

cross-tolerance – once tolerance develops for one opioid, the opioid dependent will experience tolerance to all opioids

cross addiction – addiction to other substances

cultivation – to improve and prepare land for raising crops by plowing or fertilizing

D

Darvocet-N – a synthetically manufactured short-acting opioid that is also commonly known as Darvon and contains propoxyphene

Darvon – a synthetically manufactured short-acting opioid that is also commonly known as Darvocet-N and contains propoxyphene

Demerol – a synthetically manufactured short-acting opioid that is also commonly known as Mepergan or meperidine

Depade – a synthetically manufactured long-acting opioid antagonist that is also commonly known as Re-Via or naltrexone

detoxification – the process of eliminating psychoactive chemicals from a user's body where the client experiences acute withdrawal symptoms from the specific psychoactive chemicals

diacetylmorphine – a synthetically manufactured short-acting opioid that is also commonly known as heroin

diagnosis – identification of a disease from signs, symptoms, laboratory tests, radiological results and physical findings

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition – Text Revision (DSM-IV-TR) – a comprehensive manual of all mental disorders and the criteria to identify them

Dilaudid – a synthetically manufactured short-acting opioid that is also commonly known as hydromorphone

disease – a disordered or incorrectly functioning organ, part, structure, or system of the body resulting from the effect of genetic or developmental errors, infection, poisons, nutritional deficiency or imbalance, toxicity or unfavorable environmental factors

Dolophine – a synthetically manufactured long-acting opioid that is also commonly known as Methadose or methadone

dopamine – a neurotransmitter formed in the brain by the decarboxylation of dopa and essential to the normal functioning of the central nervous system

double-blind – during a research study where neither the researchers nor the participants know who is assigned to which treatment group

Drug Addiction Treatment Act of 2000 (DATA 2000) – an Act passed by the United States Congress that amended the Controlled Substances Act and permits qualified physicians to prescribe certain opioid treatment medications from their office setting.

duration of action – how long a psychoactive substance will produce physiological and psychological effects

E

elimination – the process of ridding a psychoactive chemical from the body by excreting it either through urine, feces, sweat, saliva or breath

empathy – understanding, being aware of and being sensitive to the feelings, thoughts and experience of another without actually sharing the feelings or emotions of another

Empirin – a naturally occurring short-acting opioid that is also commonly known as Tylenol #3 and contains codeine

endogenous opioids – neurotransmitters that produce euphoria and is a naturally occurring pain reducer that are naturally increased when one feels pain or experiences pleasure

endorphins – natural peptides throughout the human body that combat pain and stress

equilibrium – an internal stability and balance that the central and peripheral nervous systems work to accomplish

euphoria – a feeling of elation or well-being that is not based on reality and is commonly exaggerated

exogenous – developed or originating from outside the body

F

FDA-approved – a process by which the Food and Drug Administration reviews efficacy and safety data to determine if a food or medication is acceptable to be distributed in the United States

Fentanyl – a synthetically manufactured short-acting opioid that is also commonly known as methylfentanyl

G

gooseflesh – little bumps on the skin that an opioid dependent might experience during acute opioid withdrawal

H

half-life – the amount of time necessary to eliminate one half of the original dosage of a psychoactive chemical from the body

heroin – a synthetically manufactured short-acting opioid that is also commonly known as diacetylmorphine

homeostasis – an internal stability and balance that the central and peripheral nervous systems work to accomplish

hydrocodone – a synthetically manufactured short-acting opioid that is contained in Vicodin or Lortab

hydromorphone – a synthetically manufactured short-acting opioid that is also commonly known as Dilaudid

hypodermic syringe – a tube of medicine with a plunger on one end and a hollow needle on the other to administer a medicine or drug

hypotension – blood pressure is below normal

I

impotence – chronic inability to attain or sustain an erection for the performance of a sexual act

induction – the first phase of medication-assisted treatment for opioid dependence

International Statistical Classification of Diseases and Health Related Problems, Tenth Revision (ICD-10) – a comprehensive manual of all disease and the criteria to identify them

intracranial lesion – a brain tumor

intravenously – injected directly into a vein

L

LAAM – a synthetically manufactured long-acting opioid that is also commonly known as ORLAAM or levo-alphaacetylmethadol

Laudanum – a naturally occurring short-acting opioid that is also commonly known as opium, Pantopon or Paregoric

levo-alphaacetylmethadol – a synthetically manufactured long-acting opioid that is trademarked as ORLAAM or LAAM

locus ceruleus (LC) – the part of the brain that is responsible for releasing noradrenaline, but is suppressed when opioids are present

lofexidine – a prescribed medication used primarily to alleviate opioid withdrawal symptoms

long-acting opioid – opioids that have a long duration of action

Lortab – a synthetically manufactured short-acting opioid that is also commonly known as Vicodin and contains hydrocodone

M

maintenance – the third phase of medication-assisted treatment for opioid dependence

mechanism of action – how something works in the brain

medically-assisted withdrawal – when an opioid dependent utilizes medication-assisted treatment to alleviate opioid withdrawal symptoms

medication-assisted treatment for opioid dependence – pharmacotherapies, such as methadone, buprenorphine or naltrexone, that are used as a component of addiction treatment for opioid dependence

Mepergan – a synthetically manufactured short-acting opioid that is also commonly known as Demerol or meperidine

meperidine – a synthetically manufactured short-acting opioid that is also commonly known as Demerol or Mepergan

metabolism – the process of breaking down a psychoactive chemical into metabolites so they may be eliminated from the body

methadone – a synthetically manufactured long-acting opioid that is also sold as Dolophine or Methadose

Methadose – a synthetically manufactured long-acting opioid that is also commonly known as Dolophine or methadone

methylfentanyl – a synthetically manufactured short-acting opioid that is also commonly known as Fentanyl

morphine – a naturally occurring short-acting opioid that is also commonly known as Roxanol

Motivational Interviewing (MI) – a method of communication that is focused on the client’s concerns and perspectives and works to enhance the client’s internal desire, willingness and ability to change by exploring and resolving his or her co-existing opposite feelings about changing

MS Contin – a long-acting extended-release opioid that is morphine

multidisciplinary addiction treatment team – a group of professionals that must collaborate in a effort to provide the best addiction treatment to a client

N

naloxone – a synthetically manufactured short-acting opioid antagonist that is also commonly known as Narcan

naltrexone – a synthetically manufactured long-acting opioid antagonist that is also commonly known as ReVia or Depade

Narcan – a synthetically manufactured short-acting opioid antagonist that is also commonly known as naloxone

neuron – the so-called building blocks of the nervous system that receive information from neurotransmitters

neurotransmitter – chemical signals that instruct a neuron to do something

nicotine replacement therapy – nicotine-containing medications used for smoking cessation including the nicotine patch, nicotine gum, nicotine inhaler, and nicotine nasal spray

noradrenaline – a neurotransmitter that is also known as norepinephrine and contributes to the “fight or flight response,” stimulates wakefulness, breathing, blood pressure and alertness

nucleus accumbens – the part of the brain responsible for the reinforcing the rewarding effects of a psychoactive chemical

O

off-label use – a legal practice when a prescriber deviates from the prescribing instructions for a medication that is determined by the Food and Drug Administration (FDA)

opiate – drugs or medications that are derived directly from the opium poppy

opioid dependence – a disease characterized by the excessive consumption of and dependence on opioids, leading to physical and psychological harm and impaired social and vocational functioning

opioid receptor – various specific protein molecules in surface membranes of cells and organelles to opioid neurotransmitters may become bound

opioid replacement therapy – opioid-containing medications used for opioid dependence

opioids – a term that refers to opiates as well as synthetically derived drugs or medications that operate on the opioid receptor system

opium – a naturally occurring short-acting opioid that is also commonly known as Laudanum, Pantopon or Paregoric

opium poppy – also known as *Papaver somniferum*, the type of poppy from which opium and all refined opiates such as morphine, thebaine and codeine are extracted

ORLAAM – a synthetically manufactured long-acting opioid that is also commonly known as LAAM or levo-alphaacetylmethadol

oxycodone – a synthetically manufactured short-acting opioid that is contained in OxyContin, Percodan, Percocet or Tylox

OxyContin – a synthetically manufactured short-acting opioid that is also commonly known as Percodan, Percocet or Tylox and contains oxycodone

P

Pantopon – a naturally occurring short-acting opioid that is also commonly known as opium, Laudanum or Paregoric

parallel group – a method of conducting a clinical trial that compares two contemporaneous groups of clients, one of which receives the treatment of interest and one of which is a control group

Paregoric – a naturally occurring short-acting opioid that is also commonly known as opium, Pantopon or Pantopon

partial agonist – a type of psychoactive chemical that binds to a neuron and prevents other neurotransmitters from binding to that neuron, as well as causes specific physiological and psychological effects

pathological – relating to disease or arising from disease

pentazocine – a synthetically manufactured long-acting opioid that is also commonly known as Talwin that is used for pain relief and illegal to use for opioid dependence treatment

Percocet – a synthetically manufactured short-acting opioid that is also commonly known as OxyContin, Percodan or Tylox and contains oxycodone

Percodan – a synthetically manufactured short-acting opioid that is also commonly known as OxyContin, Percocet or Tylox and contains oxycodone

pharmacokinetic – the process by which a psychoactive chemical is absorbed, distributed, metabolized and eliminated by the body

pharmacotherapy – medication used to treat substance abuse

pharyngitis – inflammation of the mucous membrane of the pharynx

phenothiazine – a class of neuroleptic antipsychotic medications

physical dependence – an altered physiological state produced by the repeated administration of a psychoactive chemical which necessitates the continued administration of the psychoactive chemical to prevent withdrawal

physiological – of or pertaining to physiology

placebo – an inactive substance or preparation used as a control in an experiment or test to determine the effectiveness of a medicinal psychoactive chemical

propoxyphene – a synthetically manufactured short-acting opioid that is contained in Darvon or Darvocet-

N

protracted opioid withdrawal – the second phase of opioid withdrawal syndrome where an opioid dependent experiences effects that are generally less severe than acute withdrawal symptoms

psychoactive effects – physiological and psychological effects that are produced by a psychoactive chemical

psycho-social-educational-spiritual therapy – any form of individual or group counseling that provides support, education and guidance to people with addiction and their families

R

randomized – during a research study where participants are placed into treatment groups in a way to reduce bias or interference with the variables

receptor – any of various specific protein molecules in surface membranes of cells and organelles to neurotransmitters may become bound

receptor affinity – the strength with which a substance binds to a receptor

ReVia – a synthetically manufactured long-acting opioid antagonist that is also commonly known as naltrexone or Depade

Roxanol – a naturally occurring short-acting opioid that is also commonly known as morphine

S

scope of practice – terminology used by licensing boards for various medically-related fields that defines the procedures, actions and processes that are permitted for the licensed, certified or qualified individual

sedatives – psychoactive chemicals that suppress central nervous system activity

self-efficacy – an impression that one is capable of performing in a certain manner or attaining certain goals

short-acting opioid – opioids that have a short duration of action

somnolence – sleepiness

spinal cord – a component of the central nervous system

stabilization – the second phase of medication-assisted treatment for opioid dependence

Stages of Change model – a behavioral model that identifies six independent stages of behavior and thinking in clients that are experienced during the treatment process

stimulant – a psychoactive chemical that excites or quickens a process or activity of the body

sublingually – administered underneath the tongue

Suboxone – a synthetically manufactured long-acting opioid that is also commonly known as buprenorphine, Subutex and Buprenex

Subutex – a synthetically manufactured long-acting opioid that is also commonly known as buprenorphine, Buprenex and Suboxone

synthetically-derived – man-made, produced by a synthesis of elements or materials, especially not of natural origin

T

Talwin – a synthetically manufactured long-acting opioid that is also commonly known as pentazocine used for pain relief and illegal to use for opioid dependence treatment

tolerance – after repeated administration, a given dose of a psychoactive chemical produces a decreased effect or, conversely, when increasingly larger doses must be administered to obtain the effect observed with the original dose

Transtheoretical Model of Change – a behavioral model that identifies six independent stages of behavior and thinking in clients that are experienced during the treatment process

treatment plan – an individual outline for treatment developed after evaluation and constantly monitored for effectiveness

Tylenol #3 – a naturally occurring short-acting opioid that is also commonly known as Empirin and contains codeine

Tylox – a synthetically manufactured short-acting opioid that is also commonly known as OxyContin, Percocet or Percodan and contains oxycodone

V

ventral tegmental area (VTA) – a part of the midbrain that is rich in dopamine and serotonin neurons and is considered to be part of the pleasure or reward system

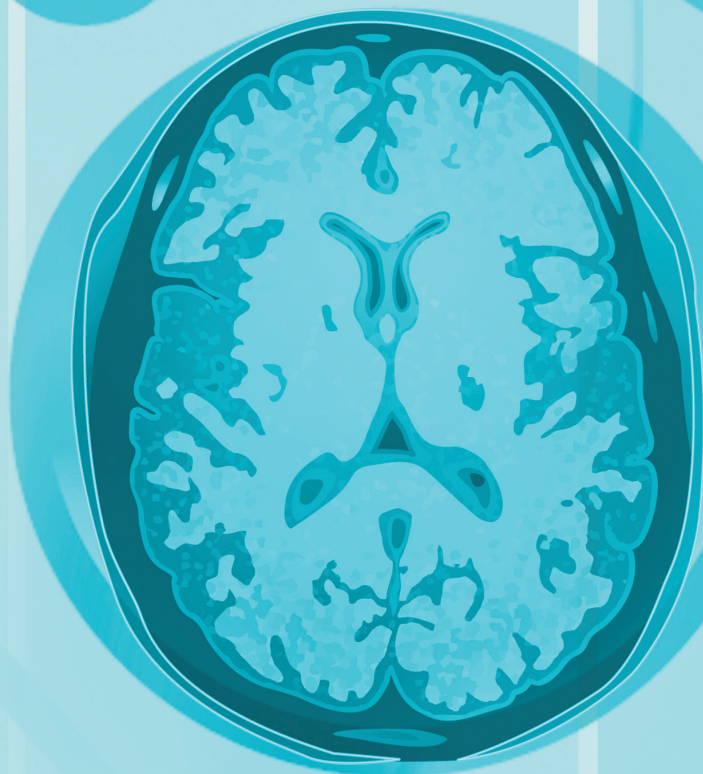
Vicodin – a synthetically manufactured short-acting opioid that is also commonly known as Lortab and contains hydrocodone

W

withdrawal symptoms – symptoms that occur when psychoactive chemical use is discontinued after heavy and prolonged use

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Section **12**



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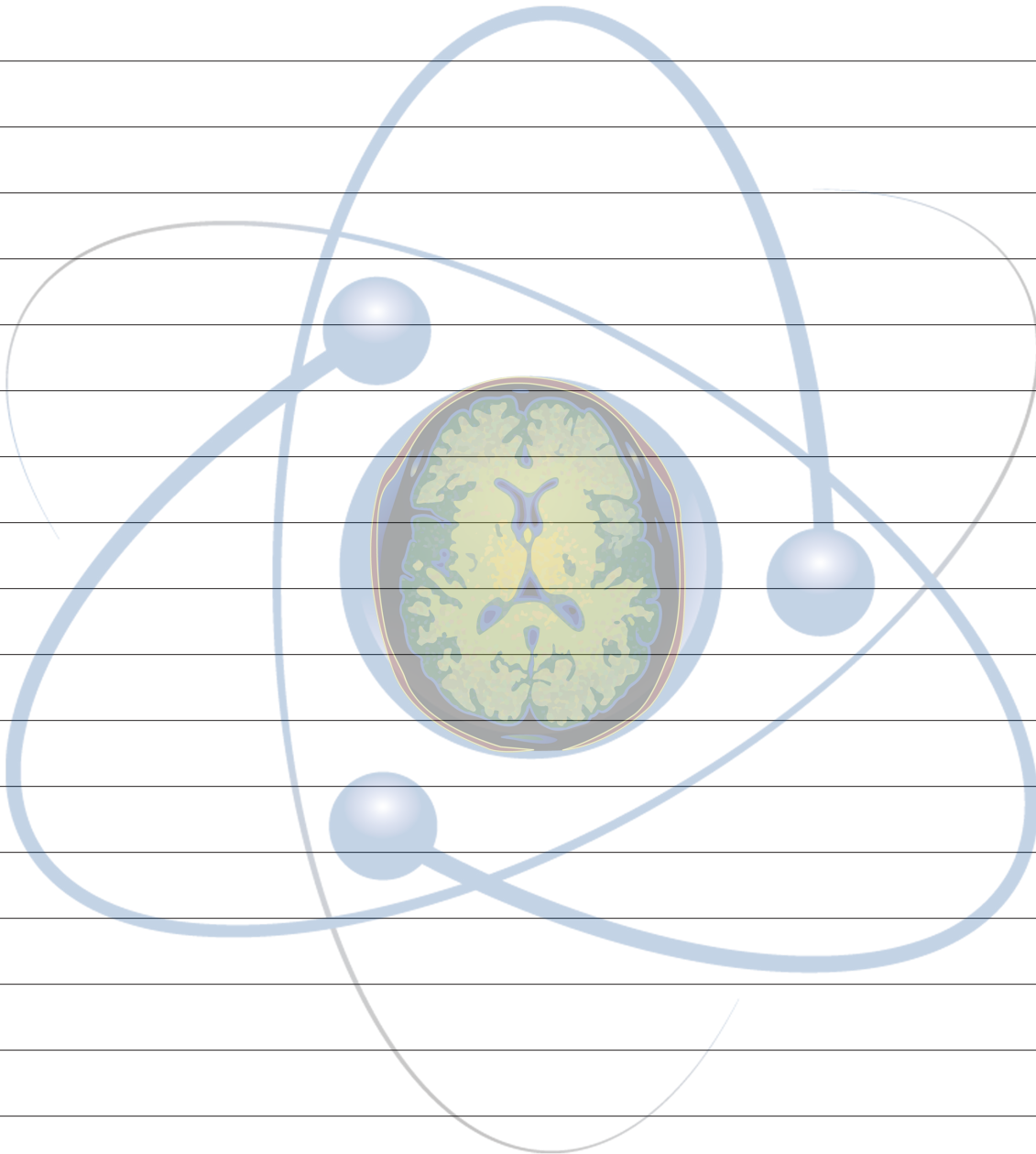
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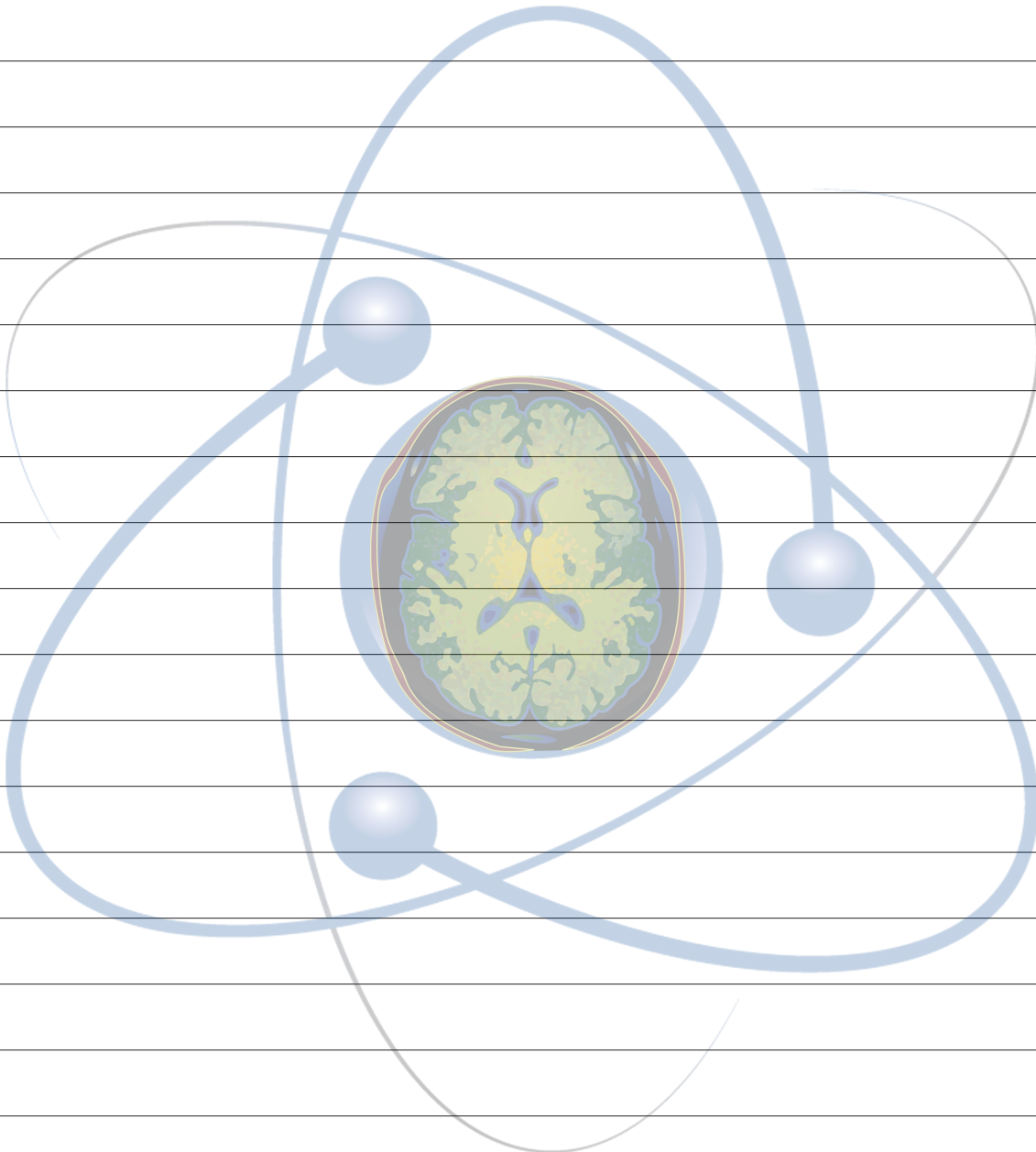
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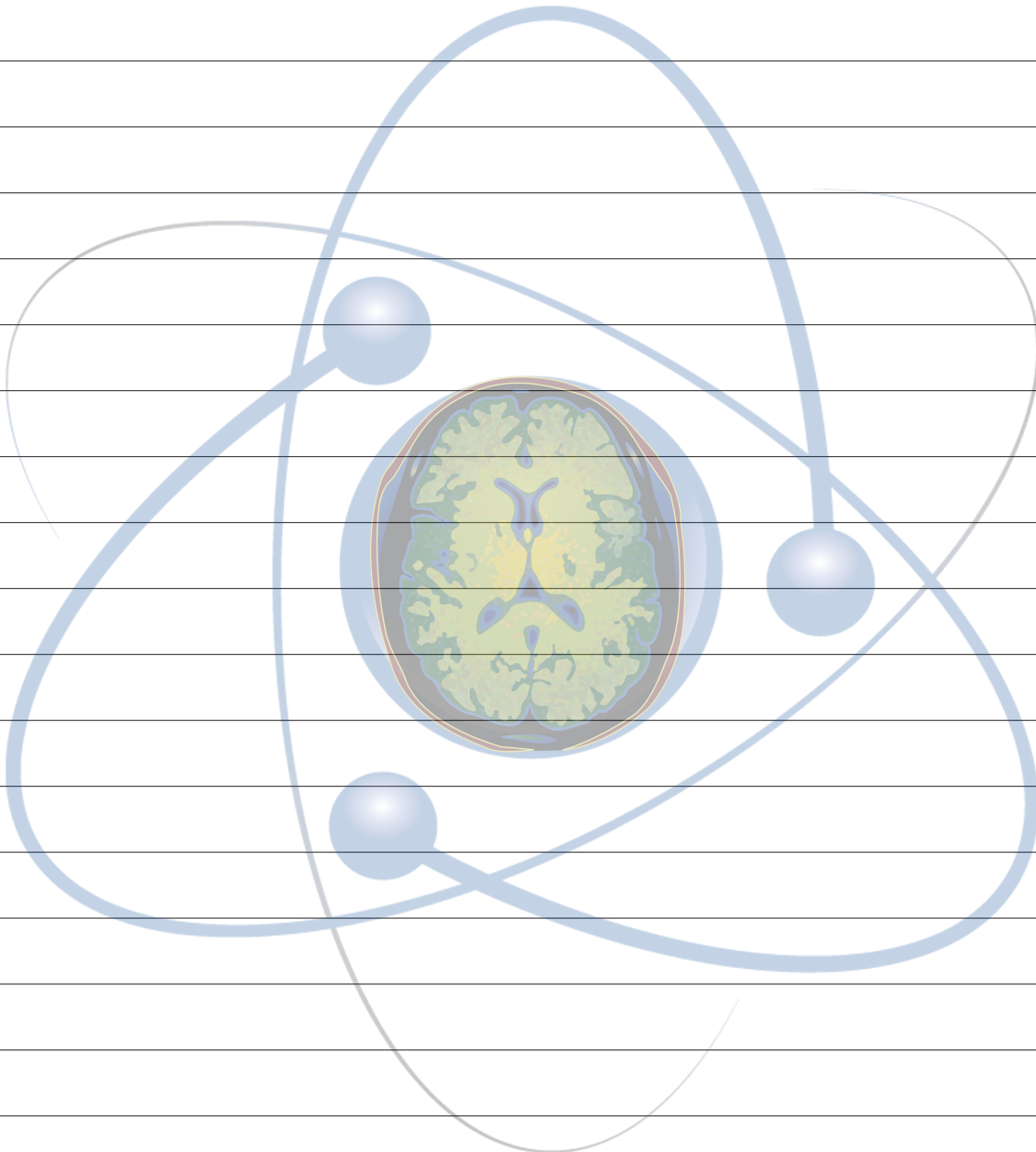
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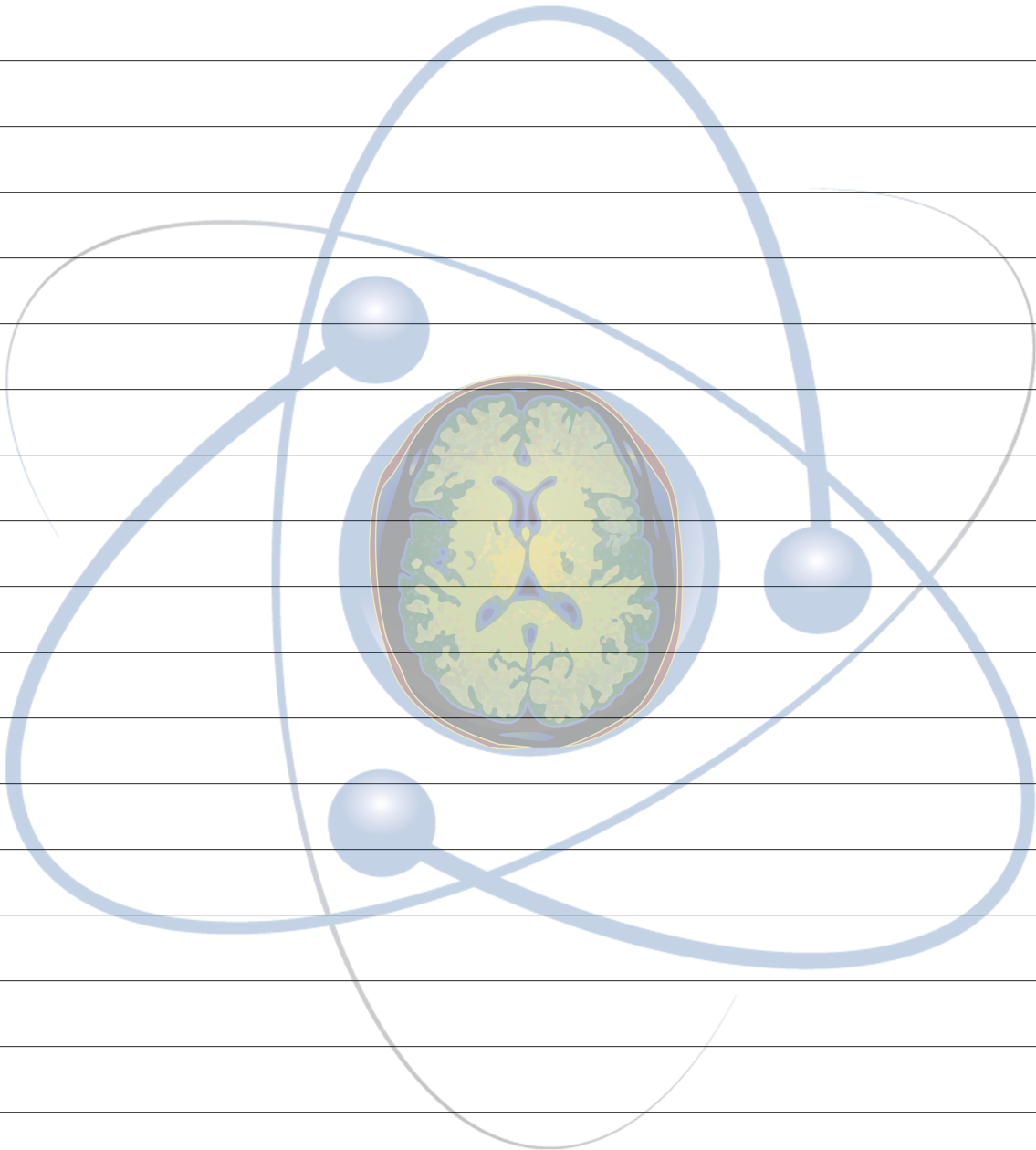
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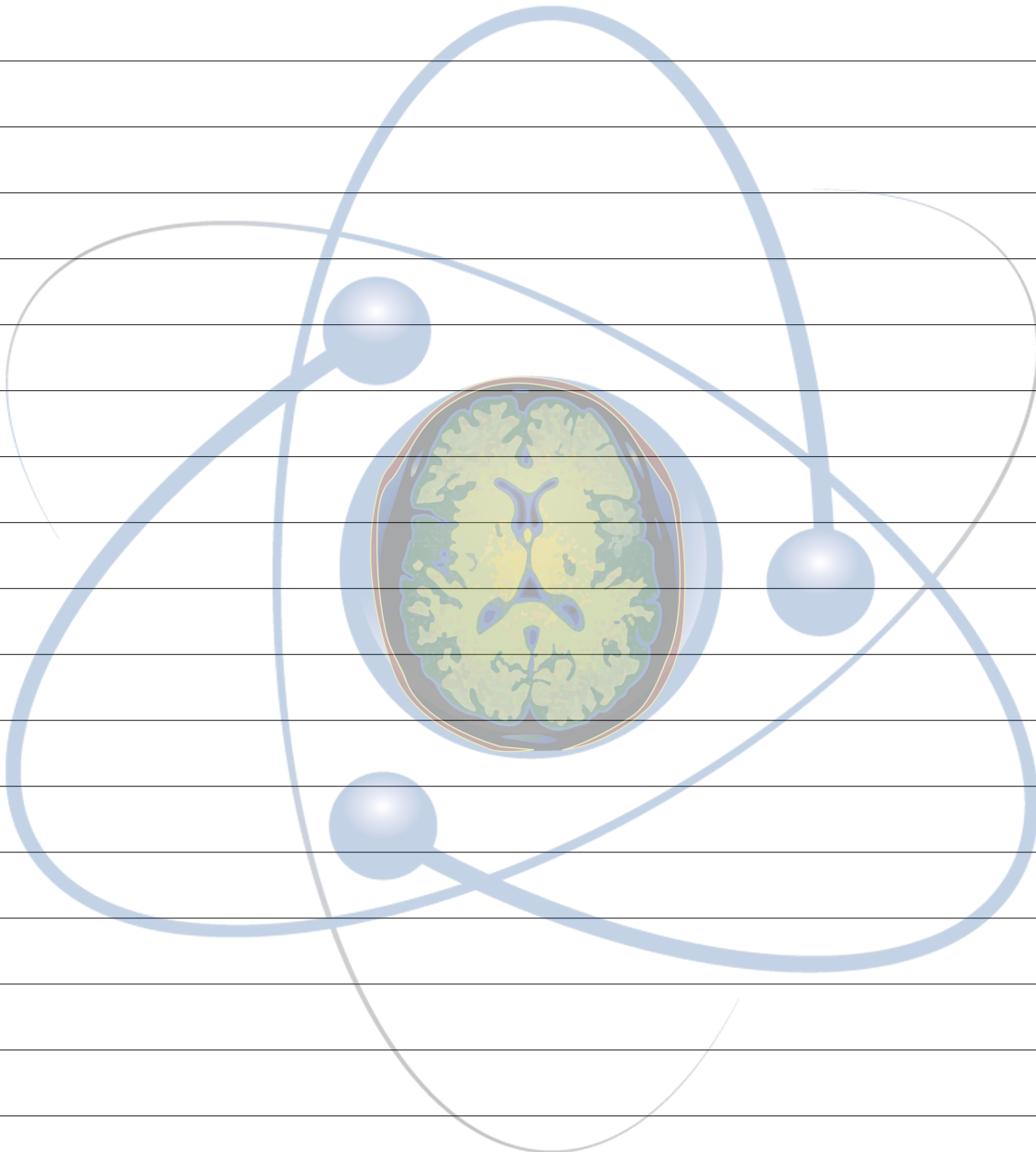
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