Integrating Motivational Skills with Pharmacotherapy for Opioid and Alcohol Dependence

Misti Storie, MS, NCC  
Director of Training, NAADAC

Seminar Agenda

8:30am to 8:45am  Introduction
8:45am to 9:25am  Pharmacotherapies and Myths
9:25am to 9:45am  Understanding Alcohol Dependence
9:45am to 10:20am  Medications for Alcohol Dependence
10:20am to 10:35am  Break
10:35am to 11:00am  Medications for Alcohol Dependence
11:00am to 12:00pm  Understanding Opioid Dependence
12:00pm to 1:00pm  Lunch
1:00pm to 1:40pm  Medications for Opioid Dependence
1:40pm to 2:05pm  Stages of Change Model
2:05pm to 2:20pm  Break
2:20pm to 5:00pm  Motivational Interviewing Techniques

Additional Resources: www.naadac.org/education

Section One: Pharmacotherapies and Myths

www.naadac.org/education

Blending Solutions: Integrating Motivational Interviewing with Pharmacotherapy

Medication Management for Addiction Professionals: Campral Series

Pharmacotherapy: Integrating New Tools into Practice

New Innovations with Opioid Treatment: Buprenorphine

New Horizons: Integrating Motivational Styles, Strategies and Skills with Pharmacotherapy
The purpose of today’s educational seminar is to provide addiction and other helping professionals with useful, unbiased information concerning pharmacotherapies so patients are afforded the best available resources and options for their treatment.

Let’s evaluate some of the good and not so good aspects of treating alcohol dependence with pharmacotherapies.
Medication-Assisted Treatment

Good Things about Using Medications to Treat Alcohol Dependence:

- Medications can help achieve complete abstinence from alcohol.
- Medications can help prevent relapse.
- Medications can reduce alcohol consumption.
- Medications help maintain recovery from alcohol.

Medication-Assisted Treatment

Good Things about Using Medications to Treat Alcohol Dependence:

- Medications can help patients stay in treatment longer.
- Medications can serve as a tool to initiate treatment.
- Medications support the therapeutic process.
- Medications can reduce absenteeism from work.

Medication-Assisted Treatment

Good Things about Using Medications to Treat Alcohol Dependence:

- Medications can increase self-confidence.
- Medications can reduce family conflict.
- Some medications are thought to alleviate cravings.
- Some medications block the effects of alcohol.

Medication-Assisted Treatment

Good Things about Using Medications to Treat Alcohol Dependence:

- Some medications are thought to decrease the desire to drink.
- Some medications provide incentives not to drink.
- Some medications reduce post acute withdrawal symptoms.
- Medications are another tool to enhance recovery.
Section Two: Understanding Alcohol Dependence

Basic Brain Functioning 101

To understand how alcohol affects the brain, let us first 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)

Basic Brain Functioning 101 (cont.)

To ensure the human body and person respond appropriately to the outside world, the brain manages itself by rapidly sending chemical signals or messages to billions of little neurons that are located everywhere in the human body.

- These messages are sent via neurotransmitters and instruct the neuron to do something.
- Neurons are commonly referred to as the building blocks of the entire nervous system, and each has its own shape, size, and function that are specific to the type of chemical signals (neurotransmitters) it can receive.

Basic Brain Functioning 101 (cont.)

Generally speaking, when a neurotransmitter is released from the presynaptic neuron and reaches the postsynaptic neuron, it binds to its receptors and activates the neuron.
Basic Brain Functioning 101 (cont.)

However, binding works on a "lock and key" mechanism, meaning not all neurotransmitters can bind to all receptors, much like not all keys fit into all locks.

Only the circle neurotransmitters will bind to the receptors, whereas, the square neurotransmitters will not.

Neurotransmitters

For our purposes, there are four main neurotransmitters that are relevant to alcohol 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
- **glutamate** – major excitatory neurotransmitter that usually causes the neuron to do something; can produce anxiety, insomnia, hyperactivity, etc.
- **GABA** – short for gamma-amino butyric acid, major inhibitory neurotransmitter that usually causes the neuron to not do something; can produce relaxation, sedation, slurred speech, etc.

Neurotransmitters (cont.)

Use the following illustrations to help you remember the primary function of each neurotransmitter as we discuss the effects they have on the brain when alcohol is consumed.

- **dopamine** – because it makes you happy
- **endogenous opioids** – because they make you euphoric and feel no pain
- **glutamate** – because it is the main excitatory neurotransmitter and speeds you up
- **GABA** – because it is the main inhibitory neurotransmitter and slows you down

Alcohol Dependence in the Brain

Researchers have pinpointed the biological changes in the brain caused by excessive alcohol consumption.

- Changes in neuronal activities in many areas cause the brain to adapt to the presence of alcohol over time.
- These advances have afforded researchers the opportunity to address alcohol dependence from a biological perspective and develop pharmacotherapies to aid in treatment.
- Changes or adaptations in neuronal functioning occur regardless if one glass of wine is consumed or five beers by a first time drinker or alcoholic.
1. Alcohol is ingested.
2. Endorphins and enkaphalins (the brain’s natural endogenous opioids) are first released from the arcuate nucleus, which activates the areas of the brain known as the ventral tegmental area and the nucleus accumbens.

3. In response to this increased endogenous opioid activity, dopamine is released.
4. Since dopamine is a main reward neurotransmitter, increases in the nucleus accumbens makes the drinker feel good.
5. The brain remembers those good feelings caused by the dopamine and alcohol.
6. The brain desires to repeat the behavior again to get the same good feelings.

Neuronal Activity in Alcohol Dependence

Now, you might be thinking...

“What would happen if we were able to simply reduce the effects of dopamine and then perhaps drinking alcohol would not feel as good?”

Well, that is exactly what scientists have been working on for decades and fortunately, we have two medications that address this exact issue.

Which two medications work by blocking opioid receptors so the reward and reinforcing effects from dopamine are reduced?

- acamprosate
- disulfiram
- extended-release naltrexone
- naltrexone
More Neuronal Activity in Alcohol Dependence

1. Alcohol is ingested.
2. GABA, a major inhibitory neurotransmitter, is increased and creates an imbalance in the brain.
3. The brain is constantly trying to maintain a balance of inhibitory and excitatory signals so homeostasis can be achieved, and this increase in GABA caused by alcohol creates an imbalance.
4. The excitatory signals of glutamate are suppressed, and the increased GABA makes the body generally slow down. 

This imbalance is manifested by physical signs of alcohol intoxication. Which signs of alcohol intoxication do you normally witness with your patients?

- Slurred speech
- Incoordination
- Impaired judgment
- Drowsiness
- Confusion

More Neuronal Activity in Alcohol Dependence

5. Since glutamate activity is reduced, glutamate is not able to activate the NMDA (glutamate) receptors as it usually does.
6. So, the brain increases the amount of NMDA receptors available for glutamate, in hopes that more opportunities for activation will yield more activity. This process is called upregulation.

More Neuronal Activity in Alcohol Dependence

7. As the brain desired, this method of upregulation works and the imbalance is corrected.
8. However, more alcohol is required to feel the same level of intoxication (tolerance).

More Neuronal Activity in Alcohol Dependence

So now the brain has fully adapted to constant presence of alcohol. What do you think will happen once alcohol is taken away? Stayed tuned...
Alcohol Dependence

To recap...

Alcohol Dependence

- Increase in endogenous opioid and dopamine activity
- Increase in GABA and suppression of glutamate
- Pleasurable effects and drive to repeat behavior

What Did You Learn?

Which two neurotransmitters are involved in making Silvia feel like this?

- dopamine
- GABA
- glutamate
- opioids

Silvia is at a happy hour with a group of her colleagues from work. After two cocktails, she feels jubilant and engaging. She is laughing a lot and describes herself as having a “nice buzz.”

What Did You Learn?

Michael is a 35-year-old male who has experienced blackouts and is unable to control his intake of alcohol. He has noticed that it takes increasingly more alcohol to achieve the same level of intoxicating effects that he enjoys.

Which two neurotransmitters are involved in making Michael feel like this?

- dopamine
- GABA
- glutamate
- opioids

Section Three: FDA-Approved Pharmacotherapies for Alcohol Dependence
Pharmacotherapy and Counselors

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, over the years, some pharmacotherapies have been introduced as the next “great thing,” only to find out that there have been serious side effects, including cross addiction.

As we have learned more about brain chemistry and how addiction develops, more sophisticated pharmacological interventions have become available.

Pharmacotherapy and Counselors (cont.)

- To be clear, neither the pharmaceutical companies nor NAADAC endorses ANY pharmacotherapy as a so-called “magic bullet” or quick fix to addiction.

- Medications are just one tool of many counselors and patients have at their disposal to combat addiction.

- It is highly unlikely that a patient will succeed in treatment with only medicinal interventions.

- The Food and Drug Administration (FDA) is very clear that all pharmacotherapies for alcohol dependence should be administered in conjunction with psychosocial treatment and should not be used as a sole approach to addiction treatment.43

Pharmacotherapy and Counselors (cont.)

- We are about to discuss the detailed aspects of each pharmacotherapy for alcohol dependence: who can take it, who cannot, special precautions, missed dose instructions, side effects, etc.

- 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.

- The information in the next section should be used for information only and as a resource for educating the patient (and sometimes prescribers), when within the addiction professionals’ scope of practice.

Pharmacotherapy and Counselors (cont.)

- NAADAC feels it is important for addiction counselors to be as familiar with pharmacotherapies as possible.

- Often, counselors see the patient the most and are in the best position to recognize danger signs, abnormal side effects and to monitor compliance.

Addiction professionals should always direct a patient to his or her prescriber if any questions or concerns regarding prescribed medications arise.
Pharmacotherapies for Alcohol Dependence

There are currently four FDA-approved pharmacotherapies for alcohol dependence.

- **Antabuse®** (disulfiram)
- **ReVia®/Depade®** (naltrexone)
- **Campral®** (acamprosate)
- **Vivitrol®** (naltrexone for extended-release injectable suspension)

There are currently four FDA-approved pharmacotherapies for alcohol dependence.

### Acamprosate General Facts

- **Generic Name:** acamprosate calcium
- **Marketed As:** Campral®
- **Purpose:** encourages sobriety by reducing post-acute withdrawal symptoms from alcohol dependence
- **Indication:** For the maintenance of abstinence from alcohol in patients with alcohol dependence who are abstinent at treatment initiation.
- **Year of FDA-Approval:** 2004

### Acamprosate Administration

- **Amount:** two 333mg tablets
- **Method:** mouth
- **Frequency:** three times a day

  Cannot be crushed, halved or diluted, but can be mixed with food.

**Abstinence requirements:** patient must be finished with medical detoxification and abstinent from alcohol at treatment initiation

**Acamprosate Administration**

There is no difference between the starting, maintenance, and ending dosages.

### Additional Information for Acamprosate

- **Risk of Overdose:** Risk of overdose is extremely remote, with the most severe side effect being diarrhea.
- **Addictive Properties:** Has not been found to be addictive, have a high abuse liability, or produce withdrawal symptoms when the medication is ceased. There were no reports of misuse, such as injection, smoking, or prescription deviation during the clinical trials.
- **Third-Party Payer Acceptance:** Does qualify for the Patient Assistance Program through Forest Laboratories, Inc. Covered by most major insurance carriers, Medicare, Medicaid, and the VA (if naltrexone is contraindicated).
How Does Acamprosate Work?

- Mechanism of Action: glutamate receptor modulator

Remember that repetitive consumption of alcohol causes:
- the brain to suppress glutamate activity,
- which causes an increase in NMDA receptors,
- counteracting alcohol’s depressive effects.

NOTE: The mechanism of action of acamprosate is not completely understood.

How Does Acamprosate Work? (cont.)

When alcohol is not present in a dependent’s body:
1. Glutamate behaves normally.
2. But there are more NMDA receptors due to upregulation, so there is more glutamate activity than normal.
3. Since glutamate is the main excitatory neurotransmitter, the normal balance between inhibitory and excitatory is altered, resulting in alcohol withdrawal.

How Does Acamprosate Work? (cont.)

During alcohol withdrawal, the depressant effects of alcohol are no longer present to counteract the effect of the increased glutamate activity, which is complicated by decreased GABA function.

Symptoms such as...
- hallucinations
- tremors/seizures
- insomnia
- dysphoria
- mood disturbances
- anxiety

...can become a powerful motive for people to resume their drinking.
How Does Acamprosate Work? (cont.)

Acamprosate works by increasing the levels of GABA in the brain, which helps to reduce cravings for alcohol and may also help to improve overall mental health.

Side Effects of Acamprosate

The following side effects occurred in 3% or more of patients during the clinical trials:

- accidental injury
- anxiety
- depression
- diarrhea
- dizziness
- dry mouth
- gas
- insomnia
- itching
- loss of appetite
- nausea
- pain
- sweating
- skin sensations
- weakness

Contraindications for Acamprosate

- Should not be administered to patients who have previously shown hypersensitivity to acamprosate calcium or any of its components.
- Should not be administered to patients who have severe renal (kidney) impairment, which is exhibited by a creatinine clearance of less than or equal to 30 mL/min.
- NOT contraindicated with patients who have mild to moderate renal (kidney) impairment, which is exhibited by a creatinine clearance of 30 to 50 mL/min. However, it is recommended that these patients take an adjusted dose of one 333 mg tablet three times a day.
- Since acamprosate is not metabolized by the liver, it is NOT contraindicated with patients who have mild to moderate hepatic (liver) impairment; therefore, no adjustment to dose is required.

Special Precautions for Acamprosate

- There was a noted increase in adverse events of a suicidal nature (suicidal ideation, suicide attempts and/or completed suicides) during the clinical trials.
- There was no difference in the rate of completed suicides.
- As always, patients should be monitored closely for suicidal thoughts or attempts.
- Utilize a standardized assessments like the Beck Scale for Suicide Ideation (BSSI) or the Hamilton Depression Inventory (HDI).
**Disulfiram General Facts**

- **Generic Name:** disulfiram
- **Marketed As:** Antabuse®
- **Purpose:** Discourages drinking by making the patient physically sick when alcohol is consumed.
- **Indication:** An aid in the management of selected chronic alcohol patients who want to remain in a state of enforced sobriety so that supportive and psychotherapeutic treatment may be applied to best advantage.
- **Year of FDA-Approval:** 1951

**Disulfiram Administration**

- **Amount:** one 250mg tablet
- **Method:** mouth
- **Frequency:** once a day

  Can be crushed, diluted or mixed with food.

  **Abstinence Requirements:** must be taken at least 12 hours after last consumption of alcohol

  The starting dose is a maximum of 500mg once a day for one to two weeks.

**Additional Information for Disulfiram**

- **Risk of Overdose:**
  Overdose is possible with disulfiram, and the local Poison Control Center should be contacted if a patient is exhibiting signs of overdose.

- **Addictive Properties:**
  Has not been found to be addictive, have a high abuse liability, or produce withdrawal symptoms when the medication is ceased. There were no reports of misuse, such as injection, smoking or prescription deviation during the clinical trials.61

- **Third-Party Payer Acceptance:**
  Covered by most major insurance carriers, Medicare, Medicaid, and the VA.61

**How Does Disulfiram Work?**

Disulfiram works by blocking the oxidation of alcohol during the acetaldehyde stage. When alcohol is ingested,

1. alcohol is broken down in the liver by the enzyme alcohol dehydrogenase to acetaldehyde;
2. then, acetaldehyde is converted by the enzyme acetaldehyde dehydrogenase to acetic acid.

Disulfiram works by blocking the enzyme acetaldehyde dehydrogenase. This causes acetaldehyde to accumulate in the blood at 5 to 10 times higher than what would normally occur with alcohol alone.
How Does Disulfiram Work? (cont.)

Since acetaldehyde is poisonous, a buildup of it produces a highly unpleasant series of symptoms, which is commonly referred to as the "disulfiram-alcohol reaction."

- throbbing in head and neck
- brief loss of consciousness
- throbbing headache
- lowered blood pressure
- difficulty breathing
- marked uneasiness
- copious vomiting
- nausea
- flushing
- sweating
- thirst
- weakness
- chest pain

- dizziness
- palpitation
- hyperventilation
- rapid heartbeat
- blurred vision
- confusion
- respiratory depression
- cardiovascular collapse
- myocardial infarction
- acute congestive failure
- unconsciousness
- convulsions
- death

The acute disulfiram-alcohol reaction usually lasts for 30 to 60 minutes, but can continue for several hours or for as long as there is alcohol in the blood.

In general, the reaction is proportional to the amount of alcohol consumed.

Symptoms are usually fully developed when the patient's blood alcohol concentration is 50 mg per 100 mL, but mild reactions can occur in sensitive patients with levels as low as five to ten mg per 100 mL.

Further, the disulfiram-alcohol reaction can be triggered when alcohol is consumed one or even two weeks after the last dose of disulfiram was taken.

How Does Disulfiram Work? (cont.)

Common side-effects:
- skin rash
- acneform eruption
- headache
- mild drowsiness
- mild fatigue
- impotence
- metallic or garlic-like aftertaste

Consult a physician:
- extreme fatigue
- weakness
- loss of appetite
- nausea
- vomiting
- general sense of uneasiness
- yellowness of the skin or eyes (liver disease)
- dark urine (liver disease)

Serious side effects = eye pain, peripheral neuritis, polyneuritis, peripheral neuropathy, hepatitis, hepatic failure

Contraindications for Disulfiram

- Should never be administered to a patient when he or she has consumed alcohol recently or is currently intoxicated from alcohol.
- Should never be administered to a patient that has consumed alcohol-containing preparations such as cough syrup, tonics, etc.
- Should not be administered to patients who have severe myocardial disease or coronary occlusion.
- Should not be administered to patients who have previously exhibited hypersensitivity to disulfiram or other thiuram derivatives used in pesticides and rubber vulcanization.
- Should not be administered to patients who experience psychosis or have recently received metronidazole or paraldehyde.
- Although not contraindicated, should be used with extreme caution in patients with diabetes mellitus, hypothyroidism, epilepsy, cerebral damage, chronic and acute nephritis or hepatic cirrhosis or impairment.
Special Precautions for Disulfiram

- The patient should be fully informed of the disulfiram-alcohol reaction and strongly cautioned against drinking alcohol.
- It is recommended that patients taking disulfiram carry an identification card outlining the disulfiram-alcohol reaction, what emergency professionals should know about this medication in the event of an emergency and the patient’s physician contact information. Cards can be obtained from Odyssey Pharmaceuticals upon request.
- Disulfiram should never be administered to a patient without their knowledge.
- Patients taking disulfiram should not be exposed to ethylene dibromide or its vapors, paint fumes, paint thinner, varnish or shellac.
- Patients taking disulfiram should exercise extreme caution when applying aftershave, mouthwash, lotions, colognes and rubbing alcohol.

Naltrexone General Facts

- **Generic Name:** naltrexone hydrochloride
- **Marketed As:** ReVia® and Depade®
- **Purpose:** To discourage drinking by decreasing the pleasurable effects experienced by consuming alcohol.
- **Indication:** In the treatment of alcohol dependence and for the blockade of the effects of exogenous administered opioids.
- **Year of FDA-Approval:** 1994

Naltrexone Administration

- **Amount:** one 50mg tablet
- **Method:** mouth
- **Frequency:** once a day

  Can be crushed, diluted or mixed with food.

  Abstinence requirements: must be taken at least 7-10 days after last consumption of opioids; abstinence from alcohol is not required;

  There is no difference between the starting, maintenance and ending dosages.

Additional Information for Naltrexone

- **Risk of Overdose:** Whereas overdose is possible, doses up to 800 mg daily did not produce any serious side effects. However, in the event of an overdose, appropriate medical treatment should be sought.
- **Addictive Properties:** Has not been found to be addictive, has a high abuse liability, develop tolerance, or produce withdrawal symptoms when the medication is ceased. There were no reports injection, smoking or prescription deviation during the clinical trials. However, administering naltrexone will invoke opioid withdrawal symptoms in patients who are physically dependent on opioids.
- **Third-Party Payer Acceptance:** Covered by most major insurance carriers, Medicare, Medicaid, and the VA.
How Does Naltrexone Work?  

**Remember:**

1. Endogenous opioids are first released from the arcuate nucleus, which activates the areas of the brain known as the ventral tegmental area and the nucleus accumbens.
2. In response to this increased endogenous opioid activity, dopamine is released.
3. Since dopamine is a main reward neurotransmitter, increases in the nucleus accumbens makes the drinker feel good.
4. The brain remembers those good feelings caused by the dopamine and alcohol.
5. The brain desires to repeat the behavior again to get the same good feelings.

**How Does Naltrexone Work? (cont.)**

Naltrexone is an opioid receptor antagonist and blocks opioid receptors.

By blocking opioid receptors, the “reward” and acute reinforcing effects from dopamine are diminished, and alcohol consumption is reduced.

**Side Effects of Naltrexone**

The following side effects occurred in 2% or more of patients during the clinical trials:

- nausea
- anxiety
- vomiting

- fatigue
- headache
- insomnia
- nervousness
- dizziness
- drowsiness

- extreme fatigue
- weakness
- abdominal pain

- general sense of uneasiness
- yellowness of the skin or eyes
- white bowel movements
- loss of appetite

Naltrexone does not appear to cause liver damage at recommended dosages, but it does have the capacity to cause damage to liver cells when given in excessive doses. Discontinue use and seek medical attention if the following symptoms of liver impairment occur:

- extreme fatigue
- weakness
- abdominal pain

- general sense of uneasiness
- yellowness of the skin or eyes
- white bowel movements
- loss of appetite

- dark urine
- nausea
- vomiting
Contraindications for Naltrexone

- Should not be administered to patients with opioid physical dependence or undergoing acute opiate withdrawal.
- Should not be administered to patients receiving opioid analgesics. This can be ensured by administering the naloxone challenge test and/or a urine screen.
- Should not be administered to patients who have previously shown hypersensitivity to naltrexone or any other components of the medication.
- Should not be administered to patients who have acute hepatitis or liver failure. Naltrexone is NOT contraindicated for patients who have mild to moderate hepatic (liver) impairment, but caution should be exercised when using naltrexone with this population.
- Naltrexone is NOT contraindicated for patients who have mild renal (kidney) impairment, but caution should be exercised when using naltrexone with this population. Patients with severe renal (kidney) impairment have not been evaluated for use of naltrexone.

Extended-Release Naltrexone General Facts

- Generic Name: naltrexone for extended-release injectable suspension
- Marketed As: Vivitrol®
- Purpose: To discourage drinking by decreasing the pleasurable effects experienced by consuming alcohol.
- Indication: For the treatment of alcohol dependence in patients who are able to abstain from alcohol in an outpatient setting prior to initiation of treatment. (and opioid dependence)
- Year of FDA-Approval: 2006

Extended-Release Naltrexone Administration

- Amount: one 380mg injection
- Method: deep muscle in the buttock
- Frequency: every 4 weeks
- Must be administered by a healthcare professional and should alternate buttocks each month.
- Abstinence requirements: must be taken at least 7-10 days after last consumption of opioids; must not be actively drinking at time of administration
- Should not be administered intravenously.

Risk of Overdose:
Doses up to 784 mg did not produce any serious side effects. The risk of overdose beyond this dosage is unknown.

However, the risk of overdose with extended-release naltrexone is dramatically decreased in comparison to other medications due to the fact that it has to be administered by a healthcare professional, and it is not released to the individual.
Additional Information for Extended-Release Naltrexone

- Addictive Properties:
  Has not been found to be addictive, have a high abuse liability, develop tolerance, or produce withdrawal symptoms when the medication is ceased. There were no reports of misuse, such as injection, smoking or prescription deviation during the clinical trials. However, administering naltrexone will invoke opioid withdrawal symptoms in patients who are physically dependent on opioids.76

- Third-Party Payer Acceptance:
  Approximately 90% of patients thus far have received insurance coverage with no restrictions. In addition, extended-release naltrexone now has a J code for payors.

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How Does Extended-Release Naltrexone Work?78

- Since extended-release naltrexone is a different version of oral naltrexone, it is not surprising that extended-release naltrexone works in the brain exactly like oral naltrexone.

- The only difference is that one injection of extended-release naltrexone blocks opioid receptors for one entire month compared to approximately 28 doses of oral naltrexone to receive the same longevity.

- NOTE: Patients should be advised that because extended-release naltrexone is an intramuscular injection and not an implanted device, it is not possible to remove it from the body once extended-release naltrexone has been injected.

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How Does Extended-Release Naltrexone Work? (cont.)

- How often do you feel your patients take their prescribed medication when it is not administered by a treatment provider?
  - 100% of the time
  - 99% to 75% of the time
  - 74% to 50% of the time
  - 49% to 50% of the time
  - 24% to 0% of the time

- Which FDA-approved pharmacotherapy for alcohol dependence do you think has the highest compliance rates for taking the medication as prescribed?
  - acamprosate
  - disulfiram
  - naltrexone
  - extended-release naltrexone

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Side Effects of Extended-Release Naltrexone60

- The following side effects occurred in 5% or more of patients during the clinical trials:
  - abdominal pain
  - anxiety
  - back pain/stiffness
  - depression
  - diarrhea
  - dizziness
  - drowsiness
  - dry mouth
  - headache
  - injection site tenderness, pain, swelling, itching, and/or discoloration
  - joint stiffness
  - loss of appetite
  - muscle cramps
  - nausea (33%)
  - pharyngitis
  - rash
  - sleep disorder
  - upper respiratory tract infection
  - vomiting
Side Effects of Extended-Release Naltrexone (cont.)

- Worsening injection site reactions that do not improve within one month should be brought to the attention of the patient’s physician.

- The patient’s physician should be contacted if he or she experiences difficulty breathing, coughing, or wheezing.

Extended-release naltrexone does not appear to cause liver damage at recommended dosages, but it does have the capacity to cause damage to liver cells when given in excessive doses. Discontinue use and seek medical attention if the following symptoms of liver impairment occur:

- extreme fatigue
- weakness
- abdominal pain
- general sense of uneasiness
- yellowness of the skin or eyes
- white bowel movements
- loss of appetite
- dark urine
- nausea
- vomiting

The patient’s physician should be contacted if he or she experiences difficulty breathing, coughing, or wheezing.

Contraindications for Extended-Release Naltrexone

- Should not be administered to patients with acute hepatitis or liver failure. Use in patients who have active liver disease should be carefully considered before administration.

- Extended-release naltrexone is NOT contraindicated for patients who have mild renal (kidney) impairment, which is exhibited by a creatinine clearance of 50 to 80 mL/min; therefore, no adjustment to dose is necessary. Patients with moderate to severe renal impairment have not been evaluated for use of extended-release naltrexone so caution should be exercised with this population.

- Extended-release naltrexone is NOT contraindicated for patients who have mild to moderate hepatic (liver) impairment; therefore, no adjustment to dose is necessary. Patients with severe hepatic impairment have not been evaluated for use of extended-release naltrexone so caution should be exercised with this population.

- Should not be administered to patients with opioid physical dependence or undergoing acute opiate withdrawal.

- Should not be administered to patients receiving opioid analgesics. This can be ensured by administering the naloxone challenge test and/or a urine screen.

- Should not be administered to patients who have previously shown hypersensitivity to naltrexone, PLG, carboxymethylcellulose, or any other components of the diluent.

Medication Comparison

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<tr>
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<th>acamprosate</th>
<th>disulfiram</th>
<th>naltrexone – oral</th>
<th>naltrexone – injection</th>
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<tbody>
<tr>
<td>missed dose instructions</td>
<td>Take missed doses if not almost time for the next dose, otherwise, skip missed dose and resume regular schedule</td>
<td>Take missed dose as soon as possible</td>
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<tr>
<td>FDA approved up to one year</td>
<td>FDA has not limited the amount of time</td>
<td>FDA studies to 12 weeks, but many longer studies have been conducted</td>
<td>FDA has not limited the amount of time</td>
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<td>should be used in conjunction with a comprehensive bio-psycho-social-spiritual treatment program</td>
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Recommended age range:

- Adolescents: 18-65
- Adults: 18-65
- Elderly: has not been FDA-approved for use with this population
- Polysubstance abusers: has not been tested with this population
- Pregnancy: Pregnancy Category C designation
Section Four: Fitting Pharmacotherapies into Treatment

Four Legs of Addiction

Think of this concept as a chair, with each leg representing a component of a patient’s treatment plan.

Psychological

Biological

Spiritual

Social

All four legs are required to “support” the patient, and if one leg is missing, the chair will be unstable and unable to accomplish its goal.

Holistic Treatment

Regardless of the type of therapeutic interventions chosen, a treatment plan must be tailored to address the multiple needs of the individual, not just his or her alcohol dependence.

- sexual orientation
- gender differences
- homelessness
- family dynamics
- children/prenatal care
- legal issues
- learning, physical, developmental disabilities
- employment issues
- developmental needs
- co-occurring disorders
- cultural, racial, religious norms

Holistic Treatment (cont.)

Treatment is most successful when the services are comprehensive. Comprehensive and effective treatment should visually resemble the following diagram:12

From NIDA’s Principles of Drug Addiction Treatment
Treatment Planning

In addition to the patient’s knowledge of the benefits and disadvantages to addiction treatment with pharmacotherapies, addiction professionals must evaluate the appropriateness of including pharmacotherapies into a patient’s individualized treatment plan.

There are many factors that contribute to a patient’s individualized treatment plan, and sometimes medications are not appropriate for all patients or situations.

Treatment Planning (cont.)

- Information gained during the assessment – physical history, treatment history, behavioral health issues and the patient’s ability (skill set) to self-medicate.
- Role of the prescriber – Does the patient have an existing relationship with a prescriber? Will the prescriber be engaged enough to determine the appropriateness of medication management? Can the patient be appropriately monitored during treatment?
- Fits with the patient – safety, effectiveness and treatment goals.
- Current level and type of substance abuse – interactions with other substances and effectiveness with polysubstance dependence/abuse.
- Treatment compliance – previous experience with other pharmacotherapies and compliance; psychosocial therapy and compliance.
- Current medications – medication interactions (prescriber).
- Ability to pay – insurance coverage, out-of-pocket, Medicare/Medicaid, etc.

Section Five:
Program Review

Scott does well during the day at work and rarely gives a thought to drinking. His walk to the subway takes him by several of his old drinking holes, and each night he fears that he will return to one of them.

Which pharmacotherapy do you feel is most appropriate for Scott?
-acamprosate
-disulfiram
-extended-release naltrexone
-naltrexone

Review of Section Three
Maria had just completed a hospital-based detox from alcohol and was discharged to the local outpatient clinic for therapy. Maria has still had a great deal of urges, thinks a lot about drinking and finds herself around her old peers who use from time to time. She has been unsuccessful in the past in being compliant with prescribed daily medication for dealing with her addiction.

- acamprosate
- disulfiram
- extended-release naltrexone
- naltrexone

Amir has been hospitalized most recently for severe renal (kidney) problems stemming from a long history of addiction. His physician has warned him that any continued use could be fatal or at a minimum will cause more severe damage, requiring the need for a transplant. He contends that his long history of dependency on alcohol and his strong cravings make it extremely difficult for him to maintain any long-term abstinence.

- acamprosate
- disulfiram
- extended-release naltrexone
- naltrexone

Maggie has just completed her third medical detox in the past 18 months. Her concern is that when she returns to her work, she will once again be facing the constant urges to return to use that seems cyclical to her now more than ever. Maggie works as a waitress at a restaurant that is attached to a bar.

- acamprosate
- disulfiram
- extended-release naltrexone
- naltrexone
Identifying Opiates and Opioids

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
- antagonists

Let’s discuss each of these categories separately.
Opioid Agonists

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
- euphoria
- bobbing head (nodding)
- warm flushing of skin, face, neck and chest
- constricted, pinpoint pupils
- 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, rectally or orally in pill form.

The duration of effects can last anywhere from 3 to 6 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.

Opium - a naturally occurring short-acting opioid that is also commonly known as Laudanum, Pantopon 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.
Opioid Agonists

- Oxycodone - a synthetically manufactured short-acting opioid that is contained in OxyContin, Percodan, Percocet or Tylox.22
- Hydrocodone - a synthetically manufactured short-acting opioid that is contained in Vicodin or Lortab.23
- Propoxyphene - a synthetically manufactured short-acting opioid that is contained in Darvon or Darvocet-N.24
- Meperidine - a synthetically manufactured short-acting opioid that is also commonly known as Demerol or Mepergan.
- Methadone - a synthetically manufactured long-acting opioid also sold as Dolophine or Methadose.
- Levo-alphaacetylmethadol - a synthetically manufactured long-acting opioid that is trademarked as ORLAAM or LAAM, which are no longer being manufactured in the U.S.

Partial Opioid Agonists

- 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 as an effect as full agonists.
  - This phenomenon is known as the ceiling effect.

Partial Opioid Agonists

Partial opioid agonists 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**

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.

- **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.

**Effects of Opioids**

The following diagram illustrates the differing effects of full opioid agonists, partial opioid agonists and opioid antagonists.  

![Diagram: Effects of Opioids]

**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)
Generally speaking, when a neurotransmitter is released from the pre-synaptic neuron and reaches the post-synaptic neuron, it binds to its receptors and activates the neuron. However, binding works on a "lock and key" mechanism, meaning not all neurotransmitters can bind to all receptors, much like not all keys fit into all locks. Only the circle neurotransmitters will bind to the receptors, whereas, the square neurotransmitters will not.

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.

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
Neurotransmitters

Use the following illustrations to help you remember 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

Opioid Dependence in the Brain

Researchers have pinpointed the biological changes in the brain caused by excessive opioid consumption.

- 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 advances have afforded researchers the opportunity to address opioid dependence from a biological perspective and develop pharmacotherapies to aid in treatment.
- Changes or adaptations in neuronal functioning occur regardless of whether a person is taking medication for pain relief or injecting heroin on the streets.

First Neuronal Activity

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

Second Neuronal Activity

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.
Second Neuronal Activity

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 increases in dopamine 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.

Onset of 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.

Onset of Opioid Dependence

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

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

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."

**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 client experiences withdrawal symptoms.

**Opioid 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
- protracted opioid withdrawal

**Acute Opioid Withdrawal Symptoms**

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

- anxiety
- chills
- craving
- diarrhea
- dilated pupils
- dizziness
- exaggerated pain response
- extreme fatigue
- fever
- gooseflesh
- headache
- increased blood pressure
- insomnia
- irritability
- loss of appetite
- muscular spasms
- rapid heart rate
- runny nose
- stomach cramps
- sweating
- vomiting
- watery eyes
- yawning
The length of time an opioid dependent client experiences acute withdrawal symptoms depends on the half-life of the opioid last consumed.

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.

If the brain is accustomed to the constant presence of opioids, more opioids must be consumed at this time to avoid withdrawal symptoms.

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.

This diagram shows the experience of a typical client dependent on heroin:

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

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

Section Three: Opioid Dependence Treatment
Medication-Assisted Treatments for Opioid Dependence

There are currently four* FDA-approved medication-assisted treatments for opioid dependence. Note: LAAM is 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 in this next section.41

*injectable naltrexone

Naltrexone General Facts

- **Generic Name:** naltrexone hydrochloride
- **Marketed As:** Vivitrol®
- **Purpose:** To discourage opioid use by reducing or eliminating the euphoric effects experienced by consuming exogenous administered opioids.
- **Indication:** In the treatment of alcohol dependence and for the blockade of the effects of exogenous administered opioids.
- **Year of FDA-Approval:** 1984; 2012
- **Class:** antagonist

- **Amount:** one 50mg tablet
  - **Method:** mouth
  - **Frequency:** once a day
- **Abstinence requirements:** must be abstinent from opioids for at least 7-10 days prior to treatment initiation
- **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.

- **Amount:** one 380mg injection
  - **Method:** deep muscle in the buttock
  - **Frequency:** every 4 weeks
- **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 injection, smoking or prescription deviation during the clinical trials. However, administering naltrexone will invoke opioid withdrawal symptoms in clients who are physically dependent on opioids.

- **Third-Party Payer Acceptance:** Covered by most major insurance carriers, Medicare, Medicaid and the VA.
How Does Naltrexone Work? - Opioids

There is an increase in opioid stimulation in the nucleus accumbens and the ventral tegmental area (VTA), and dopamine is released.

Dopamine in these areas makes us feel good, and we remember it!

Naltrexone is an opioid receptor antagonist and blocks opioid receptors when opioids are consumed.

1) Sits on the receptor and blocks activity
2) Diminishes the “reward” and acute reinforcing effects from dopamine

Methadone General Facts

- Generic Name: methadone hydrochloride
- Marked As: Methadose® and Dolophine® (among others)
- Purpose: To discourage illicit opioid use due to cravings or the desire to alleviate opioid withdrawal symptoms.
- Indication: For the treatment of moderate to severe pain not responsive to non-narcotic analgesics; for detoxification treatment of opioid addiction; for maintenance treatment of opioid addiction, in conjunction with appropriate social and medical services.
- Year of FDA Approval: 1964
- Class: agonist

Amount: maintenance dose of 80 to 120mg
Method: mouth
Frequency: once a day

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

Abstinence requirements: must be abstinent from opioids long enough to experience mild to moderate opioid withdrawal symptoms.

Initial dose will vary depending upon the client’s usage pattern, but should not exceed 40mg.

Risk of Overdose: Just like with any opioid, overdose is possible. In the event of an overdose, appropriate medical treatment should be sought.
**Methadone General Facts**

- **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.

  Methadone is the preferred method of treatment for medication-assisted treatment for opioid dependence in pregnant women. 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.

**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.

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

---

**Buprenorphine General Facts**

- **Generic Name:**
  Buprenorphine hydrochloride

- **Marketed As:**
  Subutex® and Suboxone®

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

- **Indication:**
  For the treatment of opioid dependence.

- **Year of FDA-Approval:**
  2002

- **Class:**
  Partial agonist

**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.

Both Subutex and Suboxone are administered as a single dose sublingually in a range of 4mg 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. Do not take with food, crush, half or dilute in liquid. 

---
Dosage Instructions for Buprenorphine

There are four phases associated with medication-assisted treatment for opioid dependence:

- induction
- stabilization
- maintenance
- medically-assisted withdrawal

Buprenorphine General Facts

- Pregnancy:
  Buprenorphine has not been adequately tested on pregnant women and 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.

Buprenorphine General Facts

- 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 potential and street value when compared to Subutex.

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

How Does Buprenorphine Work?

Buprenorphine is a partial opioid receptor agonist, which means that it has both agonist and antagonist characteristics.

- At low doses, buprenorphine binds to and activates opioid receptors much like other opioid receptor agonists.

- 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.
How Does Buprenorphine Work?\textsuperscript{57}

Buprenorphine works in two ways:

1) Prevents opioid withdrawal symptoms by providing mild agonist effects.
2) Occupies opioid receptors so illicit opioids will have no effect.

Post-Synaptic Neuron

Opioid Receptor

How Does Buprenorphine Work?\textsuperscript{57}

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.

How Does Buprenorphine Work?\textsuperscript{57}

- 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.

Safety Profile\textsuperscript{57}

Buprenorphine is considered a safe option available 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.
Buprenorphine is available in the United States in two different preparations:

- **Subutex** - contains only buprenorphine
- **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.

Since naloxone is not as easily absorbed through the oral tissues, a sublingual dose of Suboxone will provide a full dose of buprenorphine and only a small, non-effective dose of naloxone.

However, if Suboxone is administered intravenously, the naloxone will override the effects of buprenorphine and the opioid dependent client will experience full-blown withdrawal symptoms.

The following side effects occurred in 5% or more of clients during the clinical trials:

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

- 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.

(Information from medication package insert)

Contraindications for Buprenorphine

- Although NOT contraindicated, caution should be exercised with elderly or debilitated clients and those with alcohol dependence.
- 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.

Medication Comparison

<table>
<thead>
<tr>
<th></th>
<th>naltrexone</th>
<th>methadone</th>
<th>buprenorphine</th>
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<tr>
<td>missed dose instructions</td>
<td>Take missed dose if not almost time for the next dose; otherwise, skip missed dose and resume regular schedule.</td>
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<td>recommended length of treatment</td>
<td>FDA alludes to 12 weeks, but not definitive.</td>
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<td>16-65</td>
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<td>has not been FDA-approved for use with this population.</td>
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<td>polysubstance abusers</td>
<td>has not been tested with this population.</td>
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Section Four: Identification of Clients for Medication-Assisted Treatment
Matching with Appropriate Clients

Just like with any other substance use disorder, treatment for opioid dependence must be individualized for the client who is receiving it.

There is no single treatment approach that is appropriate for every individual, and medication-assisted treatment is no exception.

Not all clients who are opioid dependent are good candidates for treatment with pharmacotherapy.

A thorough assessment must be conducted to determine the client’s suitability for medication-assisted treatment and the counselor can help with this decision.

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
- Bio-psycho-social-spiritual developmental issues
- Family history
- Employment history
- Legal issues
- Psychosexual history
- Relevant relationships
- Support system (family and community)
- Educational experience
- Leisure activities

Client Considerations

- The client is not dependent on opioids.
- The client does not wish to be treated with medications.
- The client does not wish to be treated in an office-based setting.
- The client unrealistically relies on the potential benefits of pharmacotherapy and is unwilling to engage in the therapeutic process.
- The client does not appear to be capable of or willing to take medications as prescribed.
- The client does not appear to be psychiatrically stable enough to participate in medication-assisted treatment.
- The client is dependent on or abusing high doses of a central nervous system depressant, such as alcohol or benzodiazepines.
- The client has experienced multiple previous opioid treatment episodes, all of which resulted in frequent relapse.
- The client is dependent on extremely high doses of opioids.
- The client has a high risk of relapse based on his or her psychosocial and/or environmental conditions.
- The client may be pregnant or is nursing. (methadone)
- The client has previously experienced seizures.
- The client has HIV/AIDS, hepatitis C, or other infectious disease.
- The client does not have a good support system in place to promote recovery.
Section Five:
Program Review

Review of Section Three

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? Which medication do you feel is best?

Review of Section Three

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? Which medication do you feel is best?

Review of Section Three

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 practices 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 becoming 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? Which medication do you feel is best?
Review of Section Three

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 begun 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? Which medication do you feel is best?

Thank You for Participating!

Misti Storie, MS, NCC
Director of Training, NAADAC

Additional Resources: www.naadac.org/education
Section One: Counseling Clients with Medication-Assisted Treatment

Ready, Willing and Able to Make a Change

Even though they walk or are pushed through the doors of treatment programs, a considerable number of clients entering addiction treatment are not sufficiently motivated to change. 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 interest or will benefit them more than cost them;
- they organize a plan of action that they are committed to implementing; and
- they take the actions that are necessary to make the change and sustain the change.

The Stages of Change Model is a way to identify the important tasks needed to make change happen and can be helpful in identifying different treatment strategies needed to assist clients in making changes in their drinking.

The Stages identifies 5 critical steps in this process.

- By identifying which Stage of Change a client is currently in, a counselor can better understand the treatment needs of that client and which treatment options are most appropriate.

Ready, Willing and Able to Make a Change

precontemplation –

Clients are unaware/under aware of their problem with alcohol, does not see a need to change, are demoralized, feel hopeless, looks to change their environment and have little or no consideration of changing their drinking behavior in the foreseeable future.

Precontemplation is really about not being ready.

The main tasks are to raise ambivalence and increase the perception of risks and problems of the client’s drinking.
**Ready, Willing and Able to Make a Change**

**contemplation** –
Clients are aware of their problems with alcohol, are examining the current behavior and the potential for change in a risk-reward analysis, are still ambivalent about changing and may feel hopeless about making a decision to change.

The main tasks are to tip the decisional balance by evoking reasons for changing and risks of not changing, becoming more confident about their ability to change and making the decision to stop using alcohol.

**preparation** –
Clients make a commitment to take action to change their drinking and develop a plan and strategy to change. Clients also consider plans and resources needed to make the change and begin to take the initial steps to stop drinking.

The main tasks are to increase the clients’ commitment to discontinue their drinking, determine the best course of action to take in seeking change and then make a viable, acceptable and effective plan.

**action** –
Clients take the steps and use the tools needed to stop abusing alcohol and break the pattern of drinking and begin creating a new behavior pattern.

The main tasks 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 their ability to have a fully-functioning life without alcohol.

**maintenance** –
Clients are able to remain abstinent from alcohol for an extended period of time, continue to make positive changes in other areas of their lives and develop new coping skills to respond to stressors and changing environments.

The main tasks 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 alcohol use.
relapse – an event that interrupts the action or maintenance stage tasks and provokes a return to earlier stages.

Clients slip back to drinking alcohol and recycles back to earlier stages.

The main tasks are understanding that relapse needs to be viewed as a learning experience and not a failure, reentering earlier Stages of Change without becoming stuck or demoralized, focusing on the clients’ abilities and successes and reassessing their decision-making, commitment, planning and support to learn what is needed to be successful the next time.

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, move quickly through a stage and/or regress to an earlier stage even after progress has been made before achieving recovery.

What does this mean for recovery and treatment?

"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."

- Prochaska, Norcross and DiClemente, 1994
### Pharmacotherapy Interventions

<table>
<thead>
<tr>
<th>Stage</th>
<th>Characteristics</th>
<th>What is the patient feeling/doing?</th>
<th>What can the counselor do?</th>
<th>Are medications appropriate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precontemplation</td>
<td>Not ready to change - the patient has little or no thought or interest in changing the behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contemplation</td>
<td>Thinking about change - the risks and benefits of change are assessed by the patient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation</td>
<td>Getting ready to make change - the patient gets ready to change and tests the waters by creating a plan of action</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action</td>
<td>Making the change - the patient makes steps to change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td>Sustaining the change - the patient continues the action plan until change has been integrated into the patient's lifestyle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relapse</td>
<td>Slipping back into previous behavior - the patient goes back to the behavior and must reenter the cycle of change</td>
<td></td>
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</tbody>
</table>

### Motivational Style of Counseling

Clients experiencing a dependency on drugs or alcohol are much more likely to change their behavior if they are approached with a motivationally enhancing style of counseling.

**Motivational counseling style – a method of communicating that utilizes the perspective, ideas, beliefs and strengths of an individual to evoke internal motivation to change behaviors**

A motivational style of counseling is not a set of techniques or tricks for getting a client to do what a counselor wants, but rather “a skilful clinical style for eliciting from clients their own good motivations for making behavior changes.”

In interactions with clients about their relationship with alcohol, the goal is that clients arrive at the reasons for change that will be most influential them...
"I know I have to stop drinking. My daughter is getting so big and knows her mother is a drunk."

"My doctor tells me that I am hurting my liver by drinking so much. I guess I knew that was happening. I have felt my health deteriorate over the past several years."

"I don’t want to lose my job because I drink too much. I like working there, but it is just so stressful. Most of the time, I drink to relax from a long day of working."

"I really thought I had my drinking under control. This DUI has really been a wakeup call. I don’t want to go to jail."

Statements such as these are much more helpful to the therapeutic process than having a counselor directly point out to a client that his or her job, kids, health and freedom are in jeopardy due to the abuse of alcohol.

Having clients, instead of the counselor, verbalize their reasons for change helps build motivation within the clients and mentally prepare them for taking the steps necessary to maintain to change.

The primary purpose of utilizing a motivational style of counseling is to help clients develop and verbalize these types of statements, as well as to recognize their own desire, ability and readiness to make the necessary life changes.

The overall spirit of a motivational counseling style is comprised of three separate, but equal, components:

- collaboration
- evocation
- autonomy

Section Two:
Motivational Counseling Strategies and Skills
1) Open-Ended Questions
2) Reflective Listening
3) Affirming
4) Summarizing
5) Eliciting Change Talk
6) Asking Permission & Giving Advice
7) Menu of Options
8) Rolling with Resistance

Asking Open and Close-Ended Questions

With new clients, the counselor is tasked with assessing what problems the client is experiencing and what he or she would like from treatment.

The most direct way of gathering this information and talking with the client is to ask a series of close-ended questions.

Close-ended questions – questions that are phrased in a way to elicit a very brief or "yes" or "no" response; also known as dichotomous or saturated type questions

Open-ended questions are more helpful in developing rapport and creating the opportunity to increase motivation of the client.

Open-ended questions – questions that are phrased in a way that often elicit lengthy responses and that encourage the client to explore and share his or her feelings, experiences and perspectives

- "How are things going with you today?"
- "How would you describe your relationship with your father?"
- "How would you describe your relationship with alcohol?"

<table>
<thead>
<tr>
<th>Close-Ended Questions</th>
<th>Open-Ended Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>So, you are here because you are concerned about your use of alcohol, correct?</td>
<td>Tell me, what is it that brings you here today?</td>
</tr>
<tr>
<td>How has your alcohol intake been this week, compared to last: more, less or about the same?</td>
<td>What has your alcohol intake been like during the past week?</td>
</tr>
<tr>
<td>Do you think you drink alcohol too often?</td>
<td>In what ways are you concerned about your drinking?</td>
</tr>
<tr>
<td>How long ago did you have your last drink?</td>
<td>Tell me about the last time you had a drink.</td>
</tr>
<tr>
<td>Did you know there are several medications available to help you stop drinking?</td>
<td>There are several medications available to help you stop drinking. How do you feel about this idea?</td>
</tr>
<tr>
<td>When do you plan to quit drinking?</td>
<td>Do what do you think you want to do about your drinking?</td>
</tr>
</tbody>
</table>
1) Open-Ended Questions

2) Reflective Listening

3) Affirming

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Utilizing Reflective Listening

Reflective listening – also known as parallel talk or paraphrasing – is when a counselor listens to a client’s thoughts, perceptions, and feelings and then restates them to the client for the purpose of clarification and further exploration.

The primary goals of reflective listening are to:

1) help the counselor accurately understand not only what the client is saying, but also what the client is meaning by his or her words.
2) help the client to clarify his or her thoughts;
3) reassure the client that the counselor is listening and willing to accept his or her point of view; and
4) help the client relax and view the counselor as someone who sincerely wants to help.

Utilizing Reflective Listening

During an interaction with a client, most of the counselor’s time should be spent listening.

In a typical 1-hour session, the client would be talking for roughly 40 to 45 minutes, and the counselor would speak for a total of 15 or 20 minutes.

The secret of motivational approaches is that counselor intervention time can be maximized by carefully listening to the client and responding with statements that encourage and support the client’s ability to explore and problem solve.

Utilizing Reflective Listening

There are several phrases counselors can use when they are fairly confident they understand what the client is trying to convey:

- I understand the problem is…
- I’m sensing…
- I wonder if…
- I get the impression that…
- As I hear it, you…
- From your point of view…
- In your experience…
- As you see it…
- You believe…
- I’m picking up that you…
- Where you’re coming from…
- You mean…
- I see the situation as…
- Could it be that…
- Correct me if I’m wrong…
- Let me see if I understand. You…
- You feel…
- It seems to you…
- From where you stand…
- You think…
- What I hear you saying is…
- I really hear you saying that…
- You figure…
Once a counselor feels comfortable formulating reflective listening statements, he or she must then learn to master the “listening” component.

The basic stance of the counselor is simply [to be] present with the [client], open to whatever he or she is experiencing and wishes to say... There are times when the most important and the most healing thing you can do is simply to be there with your [clients], to take the time to listen and understand." 66

During this time, counselors need to listen not only for thoughts, but also for emotions from the client. Try to understand the feelings contained in what the client is saying, rather than just facts or ideas.

Reflective listening statements are the most beneficial when they respond to something personal within the client rather than something impersonal, distant or abstract.

Counselor: “How do you feel about taking medication to help you with your drinking?”

Client: “I try to avoid taking medication for any reason. They make me feel out of it.”

Counselor: “Your experiences with taking medications in the past make you uncomfortable with taking medications for alcohol dependence.”

When formulating reflective listening statements, the counselor is not simply restating the client’s thoughts verbatim, although sometimes using the client’s own words can be very powerful.

Client: “I try to avoid taking medication for any reason. They make me feel out of it.”

Counselor: “You don’t like to take medication for any reason because they make you feel out of it.”

More often, the counselor may strategically substitute certain words for others to encourage more thought and discussion.

Client: “I don’t have a drinking problem. I just drink four or five times per week with my friends.”

Counselor: “You drink more days than not during a week, and you do not feel that you have a drinking problem.”
Utilizing Reflective Listening

Counselors can pull out a few of the client’s words and repeat those to form a reflective listening statement.

Client: "I got way too drunk last night and really feel it this morning."

Counselor: "So, getting drunk last night did not feel good."

1) Open-Ended Questions
2) Reflective Listening
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Affirming the Client

Affirming is a skill that is intuitive to most counselors. This skill can always be improved upon and utilized to motivate clients. When affirming a client, a counselor needs to:

- focus on the client’s strengths
  "I have noticed that you are really good at identifying which areas of your life need improvement."
- encourage the client in spite of past problems
  "What a wonderful compliment your sister gave you! It seems as if your relationship with her can be salvaged in time."
- make encouraging statements and elicit positive responses
  "You are making great progress in treatment. Tell me how you feel in comparison to two weeks ago."
- acknowledge the positives
  "It seems to me that work is going well for you. You are no longer getting into trouble for being late, being drunk at work or for falling asleep at your post. That must feel really good."
- point out and celebrate steps taken so far
  "I am very proud of your progress. You have come so far in three weeks."
- remind the client of past successes
  "I know this appears very difficult to overcome, and you have been able to do it before."
- compliment attendance to the counseling session
  "I appreciate you coming in today in this weather."
- celebrate who the client is as a person
  "You are a very kind and warm person, and I can see how hurting your children affects you."
1) Open-Ended Questions
2) Reflective Listening
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Summarizing allows the counselor to help reflect on what is said (a reflection strategy), as well as to collect a client’s scattered thoughts into some form of complex reflection that highlights similarities or inconsistencies.

Summarizing – linking together a series of statements or main themes said by the client and presenting back a condensed version

During the course of a single counseling session, clients present multiple pieces of information about themselves and the challenges they face.

Clients are not always adept at organizing or compiling these different thoughts and feelings.

They do not always see the discrepancies or similarities among the different thoughts, feelings or situations that they discuss.

Since counselors are carefully listening to the client’s story, as well as the words, they listen for related thoughts, statements about problems or change and inconsistent comments.

Collecting summaries are used to gather several different statements or thoughts about change presented by the client and then combined into one cohesive thought

- usually only a few sentences
- should be used sparingly as not to interrupt the flow of conversation and encourage additional discussion.
Counselor: How do you feel about taking a medication to help treat your dependence to alcohol?

Client: I don’t particularly have a problem taking medication. I already take so many other pills for everything else. I just don’t do well with taking a lot of pills several times a day.

Counselor: So you feel you would respond best to a medication that is only taken perhaps once a day instead of three times a day.

Client: Exactly. I have some meds that I take three times a day right now for my thyroid condition, and I forget to take it all the time. It is just too annoying to constantly have to think, “Is it time to take my medication?” every three minutes.

Counselor: “Ok, I hear you. You are open to the idea of medication, and you ideally would like to take one that is convenient. What else?”

[Image]

Client: I don’t understand why everyone seems to think I have a drinking problem. I only drink when I feel like taking a load off from a hard day at work and then I go home. Everyone does that.

Counselor: So because you only drink when you feel stress from work, you feel you do not have a drinking problem any greater than the average person.

Client: Right on. So, I have a few beers after work! I see the same set of guys up at the bar every night drinking just like I am. You don’t see any of them sitting here right now, do you?

Counselor: I am a bit confused about your description of your drinking. You mentioned you sit with your friends at the bar who are not seeking treatment for their drinking behavior. So, you see yourself drinking like they do. During our last session, however, you mentioned that you frequently drink more than your friends and that they leave before you do. Please help me understand that.”

OR

Counselor: “You seem to have different perspectives on your drinking. On the one hand, you see yourself as just like your friends and colleagues who are at the bar with you and, on the other hand, you see yourself as frequently drinking more than your friends and mentioned that they leave before you do.”

[Image]
Counselors must be selective when summarizing, taking care to only highlight relevant statements that will help the client progress in treatment.

It is often best to announce a transitional summary before it begins so the client is aware that a change is about to occur.

Let’s look at an example on the next 2 slides…

Counselor: “I am glad you have a long-standing relationship with a doctor you trust. I would be glad to talk with your doctor with your permission. Would you like to call now to make an appointment?”

Client: “Sure. He is going to be excited when I ask him for help with my drinking. He has been hounding me for years to slow down. I think he will fit me in as soon as he can.”

Counselor: “Great, then we have a game plan. After we set up the appointment with your doctor, we will continue to meet to discuss how to manage changes in your drinking and how that fits into your life. You are open to the idea of pharmacotherapy to help you manage craving and urges, and you will soon have an appointment with your doctor to discuss which medications are best suited for your situation. You would like the medication to be convenient, ideally only taken once a day, and you would prefer to not take disulfiram. Did I get that right? Anything to add?”

Client: “Nope, I just have some questions for my doctor.”
The primary purpose of utilizing a motivational style of counseling is to uncover and stimulate internal motivation within a client so he or she can feel empowered to modify unwanted behaviors or initiate new ones.

However, as the phrase implies, counselors cannot simply insert internal motivation into a client. A counselor must help the client verbalize the reasons for and advantages of changing behaviors that are unique to each client.

By eliciting change talk, the counselor helps clients make their own arguments for changing unhealthy behaviors and to feel motivated to make the desired changes.

Change talk – also known as self-motivational statements, are statements said by a client that favor changing unhealthy behaviors and describe the reasons for and advantages of changing.

According to Miller and Rollnick, the creators of Motivational Interviewing, there are generally four categories of change talk, each contributing its own level of motivation in helping a client change his or her unhealthy behaviors:

1) disadvantages of the status quo – statements that express concern or discontent with the way things currently are in the client’s life. These statements do not necessarily admit to a problem behavior but indicate unhappiness with certain negative aspects and consequences of the behavior.

   “My life is so screwed up right now. I don’t want to live this way.”
   “I am tired of feeling hung over in the morning. It is getting really old.”
   “I am sick of my wife constantly being on my back about my drinking.”

2) advantages of change – statements that express the good things to be gained from the client’s perspective of changing the problem behavior.

   “I know I would be better at my job if I did not drink as much.”
   “My kids certainly would be happier if I was around more.”
   “I spend so much money on booze. I bet I could buy that boat I have always wanted if I quit drinking.”
Eliciting Change Talk

3) optimism for change – statements that express the client’s hopefulness and/or confidence in his or her ability to change the problem behavior. This type of change talk indicates that the client believes change is possible or is at least hopeful of the possibility.

“I know I can do it if I just put my mind to it.”
“Deserve a better life. I hope I am strong enough to resist the urge to drink.”
“I know it is going to be hard, but I have survived worse. I can do this.”

4) intention to change – statements that express the client’s desire, willingness or commitment to change the problem behavior. Generally, these statements indicate how strong the client’s commitment to change is at any given time.

“I would like to know what it is like to be sober for once.”
“I am going to stop doing this to myself.”
“I want to stop drinking.”

Most clients are not so insightful or convinced of the need to change when they enter treatment. For these clients, the counselor acts as a guide or coach to help them move toward change and works to elicit self-motivational statements during the course of treatment.

1) Ask evocative questions – This technique is by far the simplest and most direct. Remember, these questions should be open-ended and geared towards one of the four categories of change talk (disadvantages of the status quo, advantages of change, optimism for change and intention to change).

- disadvantages of the status quo
- advantages of change
- optimism about change
- intention to change
Ask Evocative Questions

• What worries you about your current situation?
• What makes you think you need to do something about your drinking?
• What difficulties have you had in relation to your drinking?
• In what ways do you think you or other people have been harmed by your drinking?
• In what ways has this been a problem for you?
• How has your drinking stopped you from doing some things that you want to do?
• If you were 100% successful and things worked out exactly as you would like with regard to your drinking, what would be different?
• What are some advantages of changing your drinking habits?
• How would you like for things to be different?
• How would you like your life to be five years from now?

Ask Evocative Questions

• What encourages you that you can change if you want to?
• What do you think would work for you, if you decided to change?
• When else in your life have you made a significant change like this? How did you do it?
• How confident are you that you can stop drinking?
• What personal strengths do you have that will help you succeed?
• Who could offer you helpful support in making this change?
• How important is it to you to change your drinking?
• What methods would you be willing to try to change your drinking?
• What are you thinking about your drinking at this point?
• So, what do you intend to do about your drinking?

Eliciting Change Talk

2) Use the importance and confidence rulers – tools that can assist in helping clients assess how central or important the change is to them at present and how able or confident they feel about making the change.

They should be used carefully to evaluate the level of importance of the specific behavior change and the confidence the client has to reduce or stop the behavior. Client responses can then be used to continue a conversation that hopefully elicits self-motivational statements.

To use the importance ruler, simply ask the client:

“On a scale of 0 to 10, how important would you say it is for you to reduce or stop drinking, with 0 being not at all important and 10 being extremely important?”

To use the confidence ruler, simply ask the client:

“On a scale of 0 to 10, how confident would you say you are about being able to stop drinking, with 0 being not at all confident and 10 being extremely confident?”

Once the client has answered the two previous questions, the counselor can support high scores and can explore the ratings that the client gives by asking:

“Why are you at a [four] and not a zero?”

“What would it take for you to go from a [four] to a [seven]?”

“Why are you at a [four] and not a zero?”

“What would it take for you to go from a [four] to a [seven]?”
Eliciting Change Talk

3) Explore the status quo – Asking the client to express both the advantages and disadvantages of continuing to drink, as well as the advantages and disadvantages of stopping drinking, can help the client clarify his or her thoughts.

This technique allows for the client to verbalize what can be gained from changing.

Perhaps he or she has never verbalized the advantages side of the problem before to a counselor.

This process is called exploring the decisional balance.

4) Elaborating – When a client makes a change talk statement, the counselor should take the time to fully explore the thought before moving on to another topic.

If a client expresses that he or she drinks too much, ask the client to elaborate on drinking frequency, quantity or consequence using open-ended questions as much as possible.

Ask the client to describe a specific example of when he or she drank too much.

When describing this event, the client is likely to describe negative consequences resulting from drinking and outline reasons he or she needs to change.

5) Asking about extremes – Another way of eliciting change talk is by asking a client to describe the most extreme consequences that might occur if he or she does not change.

“What are the worst things you could imagine happening to you if you do not stop drinking?”

“What scares you the most about continuing to drink?”

On the other hand, asking the client about the most extreme positive consequences of changing his or her behavior can be beneficial as well.

“What is the most wonderful thing you hope to gain by stopping drinking?”

“Describe to me the most extreme thing you would like to do with your life if alcohol was not a part of it.”
During the course of the therapeutic process, there are going to be times when the client is unable or unequipped to explore the problem or develop an appropriate course of action.

One of the counselor’s primary responsibilities is to provide sound advice to the client, when appropriate, to help him or her progress toward change.

When offering advice to a client, it is important to ask permission and be clear that the client is in charge and is welcome to take the advice or leave it.

The path to recovery will ultimately be decided by the client, and the counselor is simply there to provide assistance, support and alternative perspectives.

There are only 3 circumstances in which a counselor should provide advice to a client:

1) when the client specifically asks for the counselor’s expertise – Counselors are free to dispense advice at this point and should carefully evaluate the possible benefits of doing so.

   Some clients will take advantage of the counselor’s expertise and some may want to rely on it so much to guide his or her progression in treatment that it interferes with motivation.

   If the counselor feels that the timing is appropriate and the client has sufficiently contributed to the discussion, he or she should provide enough advice to elicit further discussion by the client.

2) when the client has granted the counselor permission to dispense advice – Many counselors are very eager to offer his or her opinion to the client, even when the client has not requested it.

   Counselors using motivational counseling strategies offer unsolicited advice only when the following criteria have been satisfied:
   - The counselor has elicited the client’s own ideas and knowledge on the subject; and
   - The advice about to be dispensed is important to the client’s safety or will help his or her motivation to change.

   The client has granted permission.

Asking permission before dispensing advice honors the client’s autonomy and makes him or her more open to hearing what the counselor has to say.

Further, asking permission reinforces the existence of a respectful, collaborative relationship.

"I have a couple of thoughts about your plan of action. Would you mind if I shared them with you?"

"I don’t know if this will work for you or not, but I could give you some ideas of what other people have done in your situation."
Asking Permission and Giving Advice to a Client

3) when the client is obviously headed in a direction that is detrimental to his or her recovery –

Sometimes clients explore their ideas about how to change and decide on a plan that is either not helpful or directly undermines the goals of the therapeutic process.

In this instance, it is entirely appropriate for the counselor to intervene and provide a different perspective for the client to consider.

The client does not have to listen or adhere to any advice offered by the counselor, and the counselor should respect the client’s autonomy to do so.

Client: “I think I can still go to a bar to play pool with my friends without drinking.”

Counselor: “It sounds like that might be a difficult thing to do. It is clearly your choice but can you think of some other activities to socialize with your friends?”

Presenting a Menu of Options

At some point in treatment, the client and counselor should begin to explore the wide range of intervention and change strategies, as well as treatment options, that are available.

There is more than one path to recovery, and clients may freely explore all available options so they can make the best informed decision regarding their change strategies and treatment options.

Counselors help clients explore the myriad of treatment choices.

Example -

Client: “One of my goals is to stop drinking all together, but I honestly do not know how to do that. Do you have any suggestions?”

Counselor: “Well, there are several different options available to you. You could enter into a 90-day inpatient treatment program or perhaps an outpatient program would work better for you. Some clients have had success taking a medication to help with their cravings and post-acute withdrawal symptoms, whereas other clients have benefitted greatly from twelve-step support groups. Which of these options seems the best to you, keeping in mind that you do not have to select just one option?”

Client: “I like the idea of reducing my cravings. That is what scares me the most about stopping drinking. I also think I could do outpatient treatment for a while.”
Presenting a Menu of Options

- By providing clients with several options, they can discount the choices that are not appealing and focus on the ones that could work.
- Having the client verbalize which treatment options are the best for him or her is another form of change talk and advances the client towards recovery.
- Personal experience of the counselor with a certain method of recovery may not necessarily mean it is the most effective or appropriate for every client.

1) Open-Ended Questions
2) Reflective Listening
3) Affirming
4) Summarizing
5) Eliciting Change Talk
6) Asking Permission & Giving Advice
7) Menu of Options
8) Rolling with Resistance

Rolling with Resistance

Even though some clients present themselves in treatment ready to change, the realities of implementing a major life change can become daunting. It is inevitable that at some point during the therapeutic process, clients are going to exhibit some resistance to changing their problem behavior.

Resistance – responses from a client that express opposition to an idea, observation or plan

Research indicates that the counselor’s response to resistance can either increase or decrease future resistance from the client.

It is extremely important for a counselor to appropriately respond to a client’s resistance and use the resistance as an opportunity to discuss the client’s fears, concerns, insecurities and ambivalence about changing.

When a client expresses resistance, he or she is signaling to the counselor to take the conversation in a different direction.

Resistance is more effectively met with understanding, calmness and encouragement and not with defensiveness, hostility or coercion.
1) Arguing – The client contests the accuracy, expertise or integrity of the counselor. The client can argue with the counselor in three ways:

   - Challenging – directly challenging the accuracy of what the counselor has just said.
     - "That is not true. I provide for my daughter when I can."
   - Discounting – questioning the counselor’s personal authority and expertise.
     - "You don’t know what it is like; you have never been addicted to alcohol before."
   - Hostility – expressing direct hostility towards the counselor.
     - "Who do you think you are? You think you are so much better than me!"

The first step in responding to resistance is being able to recognize it when it is exhibited by a client. There are four general types of resistant behaviors:

2) Interrupting – The client breaks in and interrupts the counselor in a defensive manner. The client can interrupt the counselor in two ways:

   - Talking over – speaking while the counselor is still talking, without waiting for an appropriate pause or silence.
     - Counselor: "For several weeks now we have been discussing your relationship with alcohol. Perhaps we could…"
     - Client: "Do we have to talk about that again? We are beating the topic to death."
   - Cutting off – breaking in with words obviously intended to cut the counselor off.
     - "Hold on a minute! You are making me out to be the bad guy!"

3) Negating – The client expresses an unwillingness to recognize problems, cooperate, accept responsibility or take advice. The client can negate in several ways:

   - Blaming – blaming other people for his or her problems.
     - "If my girlfriend did not hassle me so much about my job, I would not have to drink as much."
   - Disagreeing – disagreeing with a suggestion that the counselor has made, offering no constructive alternative.
     - Counselor: "Your wife is expressing a great deal of loneliness because you are out with your friends drinking every night."
     - Client: "Yes, but she goes out with her friends too."
   - Excusing – making excuses for his or her problem behavior.
     - "I am really shy. Drinking socially with friends helps me loosen up."
   - Minimizing – suggesting that the counselor is exaggerating risks or dangers, and that it “really isn’t that bad.”
     - "Oh, come on, I have a few beers with friends when the mood strikes me. It is not like I am a fall-down drunk who is abusive to my wife and kids. My problem is not nearly as bad as you make it seem."
4) Ignoring – The client shows evidence of ignoring or not following the counselor. The client ignores the counselor in four ways:

- **Inattention** – The client’s response indicates that he or she has not been following or paying attention to the counselor.
  
  “Umm, what did you say?”

- **Non-answer** – The client gives a response that is not an answer to the counselor’s question.
  
  **Counselor:** “How do you feel about staying away from your favorite bar for a few weeks?”
  
  **Client:** “The bar is not my problem. I need to stay away from my boyfriend for a few weeks.”

Once a counselor recognizes that a client is expressing resistance, he or she must then appropriately respond to the client, taking care not to encourage more resistance.

The counselor must be able to dig through the noise of resistance and tune into what the client is actually trying to convey.

An appropriate response to resistance validates the client’s emotions, while decreasing the intensity of his or her resistance. This can be accomplished in several ways...

- **Simple reflection** – Acknowledge the client’s disagreement of perceptions without causing defensiveness.
  
  **Counselor:** “I hear what you are saying and can understand why you would feel that way.”

- **Amplified reflection** – Reflect back what the client has said in an exaggerated way. If done successfully, this encourages the client to back off a bit and will elicit the other side of his or her ambivalence. The tone of the counselor’s voice is critical to this approach.
  
  **Client:** “My husband and friends all think I have a problem with drinking. I am doing just fine.”
  
  **Counselor:** “So, you seem to have complete control over your drinking.”

- **Double-sided reflection** – Acknowledge both sides of the client’s ambivalence. This requires pulling together information the client has offered throughout the visit. Utilizing “and” instead of “but” can help maintain a balanced emphasis on each statement.
  
  **Client:** “I don’t drink any more than any of my girlfriends.”
  
  **Counselor:** “On one hand, you are expressing that you need to stop drinking because it is negatively affecting your daughter and marriage, and on the other hand, your friends appear to drink as much as you. I can see how you might be confused about this.”
Rolling with Resistance

Shifting focus – Shift the client’s attention away from the roadblock that is impeding his or her progress. Taking a “detour” can diffuse resistance, especially in difficult situations.

Client: “I would not be here if the judge did not order me to. I guess you are going to tell me how much of a drunk I am.”

Counselor: “Wow, I just met you. Why don’t we first begin by talking about why the judge said you had to come here.”

Rolling with Resistance

Reframing – Acknowledge the validity of the client’s perspective and observations but offer a new meaning or interpretation.

Client: “I have always been able to handle my liquor. I could drink a twelve-pack of beer in one night and most people would not know that I was drunk. No matter how much I drink, I can still handle my business.”

Counselor: “That is an interesting perspective, and I can see how you would view that as a benefit. Being able to drink that much without others noticing indicates a high level of tolerance and may mean you have lost a warning sign of your rising blood-alcohol level.”

Rolling with Resistance

The following chart outlines responses to a client’s resistance that a counselor should avoid:

<table>
<thead>
<tr>
<th>Type of Response</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criticizing, shaming or blaming – The counselor’s underlying intent seems to be to shock or jar the client into changing by instilling negative emotions about the status quo.</td>
<td>“Listen, I know you do not think you have a problem with drinking, but you obviously do. Your life is in total shambles; your wife has left you; your kids are living with their grandparents; you got fired from your job, and your friends are all expressing that you need to go into rehab.”</td>
</tr>
<tr>
<td>Labeling – The counselor proposes acceptance of a specific label or diagnosis to characterize or explain the client’s behavior.</td>
<td>“I think it is important for you to acknowledge that you are an alcoholic before we can begin to get deep into why you are an alcoholic.”</td>
</tr>
<tr>
<td>Arguing for change – The counselor directly takes up the pro-change side of ambivalence on a particular issue and seeks to persuade the client to make the change.</td>
<td>“You have no idea how wonderful your life can be if you were to just give up drinking. You could spend more time with your kids and wife; you would not be hung over in the morning; and think of all the money you would be saving each month!”</td>
</tr>
<tr>
<td>Assuming the expert role – The counselor structures the conversation in a way that communicates that the counselor “has all the answers.”</td>
<td>“I have been doing this for a long time, and I can tell you that you are not going to be able to stop drinking while you are still hanging out with your friends at bars.”</td>
</tr>
</tbody>
</table>
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Thank You for Participating!

1001 N. Fairfax St., Ste. 201, Alexandria, VA 22314
phone: 703.741.7686 / 800.548.0497
fax: 703.741.7698 / 800.377.1136
www.naadac.org • misti@naadac.org