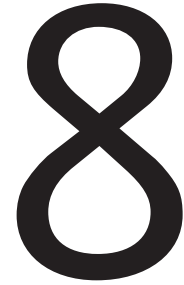


Medication



Outline

- Drug therapy for mental health problems
- Drug therapy for substance use problems
- Medication management
- Medication abuse or dependence
- Drug interactions
- Ongoing treatment
- Stopping medication

DRUG THERAPY FOR MENTAL HEALTH PROBLEMS

Medications are essential to many clients' treatment programs, but they are not the only treatment. In most cases, medications are more effective if they are combined with some of the interventions that were discussed in Chapter 7.

Often, psychiatric medication will help stabilize people and clarify their thinking so they can focus on treatments such as cognitive-behavioural therapy, group therapy or family-focused therapy.

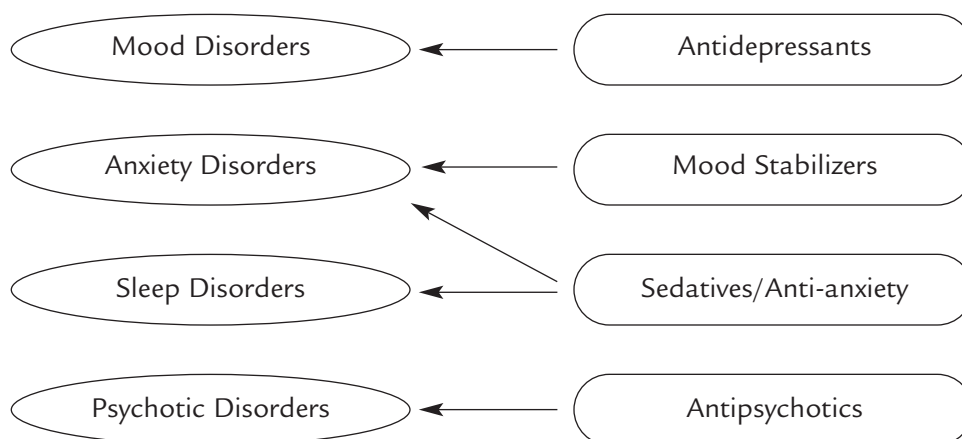
Types of psychiatric medication

Most mental health medications are used to help restore chemical balance in the brain. This can help to reduce the frequency and severity of symptoms. Medications are divided into four main groups based on the problems that they were developed to treat:

- antidepressants
- mood stabilizers
- anti-anxiety medications / sedatives
- antipsychotics.

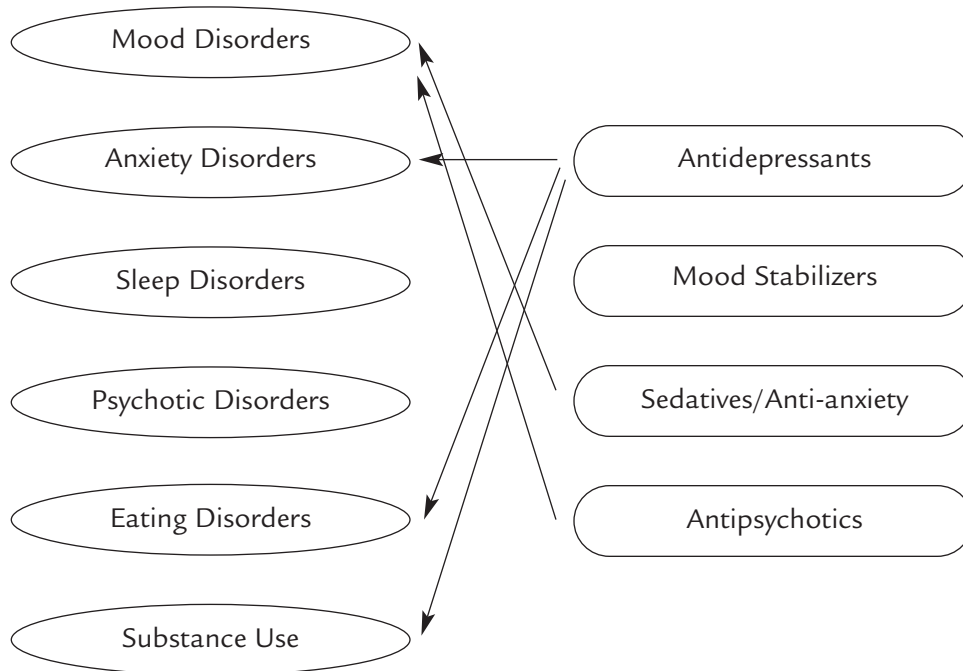
Medications have a generic (or chemical) name and a brand (or trade) name that is specific to the company that makes the medication. For example, the generic antipsychotic clozapine is sold under the brand name Clozaril. The brand name may change depending on the country in which the medication is marketed.

Figure 8-1: Traditional uses for classes of psychiatric medications



Despite the four distinct classes of psychiatric medications listed above, each type of medication can be used to treat various disorders. For example, a person who takes a mood stabilizer to treat bipolar disorder may also take an antidepressant, anti-anxiety or antipsychotic medication to treat symptoms such as depression, sleep problems, anxiety or psychosis.

Figure 8-2: Alternative uses for classes of psychiatric medications



ANTIDEPRESSANTS

Antidepressants work via a number of different mechanisms, but the end result is to increase the level of communication between nerve cells in the brain. While they were originally used to treat depression, antidepressants are also used to treat chronic pain, bulimia, premenstrual dysphoric disorder, chronic fatigue syndrome and anxiety disorders. In fact, antidepressants, especially the class known as selective serotonin reuptake inhibitors (SSRIs) such as Prozac, are used more often to treat anxiety disorders than are traditional anti-anxiety medications such as Valium.

MOOD STABILIZERS

Mood stabilizers are used to help control mood swings (extreme highs and lows) connected with bipolar disorder, and to prevent further episodes of this condition. Lithium was the first mood stabilizer on the market and is still a useful medication. Other medications used to stabilize mood include anticonvulsants, which were developed to treat epilepsy and other seizure disorders.

Medication

Treatment of bipolar disorder depends on the individual's symptoms. Bipolar disorder may also be treated with antidepressants in combination with mood stabilizers.

ANTI-ANXIETY MEDICATIONS / SEDATIVES

The main group of medications in this class consists of benzodiazepines, such as diazepam (Valium) and lorazepam (Ativan). While they are legitimate medications for treating anxiety and sleep disorders, they can become addictive if used for more than about four weeks; they also have the potential to be abused (see "Medication abuse or dependence," p. 148). An anti-anxiety medication that can be used for a longer period of time is buspirone (BuSpar).

ANTIPSYCHOTICS

Antipsychotics reduce the effect of dopamine in the brain. They are traditionally used to treat schizophrenia and other psychotic disorders. The newer, second-generation antipsychotics are now also being tested as mood stabilizers, anti-anxiety medication and even as a treatment for refractory depression (depression that is difficult to treat).

For more information about psychiatric medications, see:

- *Medications* (published by the National Institute of Mental Health in the U.S., and available online at www.nimh.nih.gov/publicat/NIMHmedicate.pdf).
- *Psychotherapeutic Medications 2006* (published by the Addiction Technology Transfer Center in the U.S. and available online at www.mattc.org/_media/publications/pdf/Medications2006_5.pdf).

DRUG THERAPY FOR SUBSTANCE USE PROBLEMS

Medication is not used as often to treat substance use problems as it is to treat mental health problems. However, sometimes medication is added to other behavioural and psychological treatments.

Treatment strategies include:

- withdrawal management
- substitution therapy
- antagonist therapy
- aversive therapy.

Withdrawal management

The main objective in the pharmacological treatment of drug withdrawal is to prevent severe complications, particularly seizures in the case of some drugs (e.g., alcohol, barbiturates, benzodiazepines) that can happen when people stop using substances. Medication is also sometimes used to help prevent relapse.

Substitution therapy

In substitution therapy, the substance of abuse is replaced with a medication that is less likely to be abused. Substituting methadone, a synthetic opioid, for heroin is one example of substitution therapy. Methadone suppresses the withdrawal symptoms of other opioids as well as the chronic craving, without causing a person to become euphoric or tolerant to the medication.

The side-effects of methadone include:

- drowsiness, insomnia, dysphoria (feeling uneasy), weakness, dizziness, light-headedness and nervousness
- nausea, vomiting, chronic constipation, decreased appetite and dry mouth
- sweating, flushing, impotence and ejaculatory problems.

Antagonist therapy

Antagonist therapy blocks the effects of opioids. For example, naltrexone (ReVia) is sometimes used to block the effects of alcohol. It is used to help maintain abstinence following withdrawal from opioids or alcohol. It is most useful in highly motivated clients.

The side-effects of naltrexone include:

- insomnia, anxiety, nervousness, dysphoria, depression, lethargy, fatigue, confusion and headache
- abdominal cramps, nausea, vomiting and weight loss
- joint and muscle pain.

Aversive therapy

In aversive therapy, a medication is prescribed that will cause unpleasant side-effects if substances are also used. Aversive therapy discourages use of the substance. Disulfiram (formerly marketed under the trade name Antabuse) is an example of aversive therapy to discourage alcohol use. Although Antabuse is no longer made commercially in Canada, pharmacies can make capsules using disulfiram powder.

Medication

The symptoms that result when disulfiram is combined with alcohol include:

- nausea and dry mouth
- flushing, sweating, throbbing head and palpitations.

MEDICATION MANAGEMENT

While full remission and recovery are possible, the amount of symptom relief varies from person to person. There is still a great deal of trial and error involved in finding the best medication for each person. You and your relative should be involved in the decision-making process, and be given information about the benefits and risks, including side-effects, of medications.

Identifying and minimizing side-effects

Side-effects may increase or decrease over time, and can range from mild discomfort to problems that are severe enough to make it impossible to cope with day-to-day life. Your relative should feel comfortable discussing side-effects with family members as well as with his or her treatment team. People often stop taking medication because of unpleasant side-effects, without reporting them to anyone. It is dangerous to stop or change medication without consulting the treatment team.

The treatment team can suggest ways to minimize side-effects. Strategies include:

- taking the medication in smaller doses spread out over the day
- taking medication with appropriate food
- taking an additional medication to treat specific side-effects
- changing the medication.

It is sometimes surprising how much of a difference even a very small dosage adjustment can make in how someone responds to treatment or is affected by side-effects. While a higher dose may be needed to control an acute episode, a person can generally be kept on a lower dose. The dose may need to be changed over time.

There are also practical, non-pharmacological strategies that your relative can use to deal with side-effects. Some of these are listed in Table 8-1.

Table 8-1: Managing common side-effects

ANTICHOLINERGIC EFFECTS	
Side-Effect	Management Strategies
Dry mouth	• chewing sugarless gum or sucking on sugarless or sour candy (both dry mouth and excess sugar can increase the risk of tooth decay) • ensuring good mouth hygiene, including frequent brushing, flossing and use of mouthwashes • having regular dental checkups • using oral lubricants (e.g., MoiStir)
Dry eyes and/or blurred vision	• reading under a bright light while holding the reading material at a distance • getting a prescription for eye drops
Constipation	• increasing fluid intake (e.g., water, juice and other non-caffeinated, non-alcoholic beverages) • increasing regular physical activity and exercise • increasing dietary fibre (e.g., bran, raw fruits and vegetables) • trying a bulk laxative (e.g., Metamucil, Prodiem) or stool softener (e.g., Surfak, Colace) • avoiding regular use of stronger or stimulant laxatives (e.g., sennosides [Senokot], bisacodyl [Dulcolax]).
Urinary retention	• using patience and running water while attempting to urinate if problem is mild • getting a prescription medication to help counteract this effect if problem is more severe

Medication

CENTRAL NERVOUS SYSTEM EFFECTS	
Side-Effect	Management Strategies
Drowsiness	• taking most of the dose, or the full dose if possible, at bedtime • using caution when driving or operating machinery
Lack of muscle co-ordination or muscle weakness (ataxia)	
Headache	• checking with a doctor since it may be due to too high a dose • trying over-the-counter headache remedies such as acetaminophen (Tylenol), aspirin or ibuprofen (Advil)—but first asking a doctor or pharmacist to check for possible drug interactions • getting a prescription for a different medication if, with time, headaches don't go away

INCREASED ENERGY (ACTIVATION EFFECT)	
Side-Effect	Management Strategies
Extrapyramidal effects (tremor, restlessness, muscle stiffness and spasms, difficulty walking)	• adjusting the dose • getting a prescription for antiparkinsonian drugs (e.g., benztropine [Cogentin])—but this medication must be monitored, as excessive doses may cause other side-effects such as disorientation, confusion and delirium) • taking propranolol, a prescription medication used to treat tremor or restlessness • taking a benzodiazepine (e.g., lorazepam [Ativan]) to treat restlessness

GASTROINTESTINAL EFFECTS	
Side-Effect	Management Strategies
Nausea	• taking medications with meals, having small snacks or drinking milk • not using antacids within two hours of taking the medication, as they may interfere with drug absorption • trying loperamide (Imodium) or attapulgite (Kaopectate) after checking with a doctor or pharmacist for any drug interactions • taking smaller doses throughout the day or—if the diarrhea is the result of taking lithium—using a slow-release preparation (sudden diarrhea may indicate lithium toxicity)
Diarrhea	

CARDIOVASCULAR EFFECTS	
Side-Effect	Management Strategies
Dizziness, fainting	• getting up slowly from a lying or sitting position and dangling feet • wearing support hose and doing calf exercises to reduce blood pooling in the calves • taking the drug in smaller, divided doses throughout the day • reporting this side-effect to a doctor—however, this is usually not a serious problem • speaking to a doctor about reducing the dose, changing medications or adding a high blood pressure medication
Rapid heartbeat	
High blood pressure	

Medication

OTHER	
Side-Effect	Management Strategies
Weight effects	• reducing carbohydrate and sugar intake and consulting a dietician, if possible • increasing physical activity and exercise
Sexual side-effects	• reporting these side-effects to a doctor, as all treatments for this side-effect involve prescription medications • trying a different drug, if these side-effects don't go away over time
Difficulty regulating extreme changes in temperature (altered thermo-regulation)	• spending only a short time in saunas or out in the sun on hot humid days due to increased risk of sunstroke • drinking plenty of fluids and staying in the shade as much as possible • wearing loose-fitting clothing and a wide-brimmed hat • avoiding overexposure on freezing days due to increased risk of hypothermia
Photosensitivity	• avoiding prolonged sun exposure • wearing loose-fitting clothing and a wide-brimmed hat • always using sunscreen with an SPF of 15 or higher
Excessive sweating	• using talcum powder and a stronger antiperspirant (e.g., Drysol) for greater comfort • reducing the dose • speaking to a doctor about adding another medication if a severe case

Questions for the doctor or pharmacist about medication:

- What is the name of the medication, and what is it supposed to do?
- How and when is it taken, and when should a person stop taking it?
- What food, drinks or other medications should be avoided while taking the prescribed medication?
- Should the medication be taken with food or on an empty stomach?
- Is it safe to drink alcohol while on this medication?
- What are the side-effects, and what should be done if they occur?
- Where is information about this medication available?

(National Institute of Mental Health, 2002)

Activity 8-1: Tracking side-effects

Try working with your relative to compile a record of medications and side-effects. This can be useful when you meet with the treatment team.

A: Side-effects		
Date	Side-effect noted	
B: Medications		
Date	Medication	Dose

Medication

Working with the treatment team

Make sure you and your relative know the name and dose of each drug taken, and the problem for which each has been prescribed.

You can help by:

- ranking symptoms of the illnesses on a scale of one to 10 and reporting any improvement
- noting side-effects and discussing them with the treatment team
- checking with a doctor and/or pharmacist for drug interactions before your relative takes any new medication (prescription or over-the-counter).

MEDICATION ABUSE OR DEPENDENCE

Health professionals have a very important consideration when prescribing pharmacological treatment for mental health problems in clients with a history of a substance use disorder. That's the possibility the client may abuse or become dependent on the medication being prescribed.

Abusing a medication means taking more of the medication than prescribed to try to get other effects (e.g., to get “high”). Dependence means that a person becomes tolerant to a medication's effects, and needs to use more and more of the medication to get the effect. This person will also experience withdrawal if he or she stops using the medication suddenly. Becoming dependent on a medication may not be due to abusing a medication. Anti-anxiety medications, stimulants and opioids are the prescription drugs that are most likely to be abused. The minimal reinforcing properties, along with troublesome side-effects, usually limit the abuse liability of antidepressants, antipsychotics and mood stabilizers. The following variables influence the likelihood of someone abusing or becoming dependent on medications:

- Substances vary in their ability to produce good feelings or pleasant effects (reinforcing effects). Someone is more likely to abuse a drug if its effects are felt quickly.
- A drug's potency or purity can influence its potential to be abused.
- A drug's cost and availability can also influence its potential to be abused.
- In general, drug effects vary greatly from one person to another. Because each person's genes are different, the drug is metabolized differently in different people. People may even respond differently to the same drug taken at the same dose.
- People may also self-medicate to cope with symptoms of a mental health problem, such as depression and anxiety.
- Starting and continuing to use and abuse substances (including abusing prescribed medications) is influenced by peer pressure and societal norms. Employment and education and the availability of other pleasurable activities (e.g., sports, socializing, club activities, recreation) have also been shown to be protective factors against drug-taking behaviour.

Benzodiazepines

There is still no agreement about the best approach to take with clients with anxiety and substance use problems. Some researchers strongly oppose prescribing benzodiazepines unless they are being given to people who are going through detoxification or who are in the acute stages of an anxiety syndrome. These researchers believe that people should stop taking benzodiazepines once another class of effective medication takes effect, as benzodiazepine use can lead to physical dependence, misuse and increased drug use. Other investigators believe that although such drugs should be avoided in many cases, the decision to prescribe benzodiazepines must be made based on each client's individual circumstances.

Anyone who takes benzodiazepines should have a complete medical and mental health assessment. The clinician should consider whether the client has tried alternative medication and whether a psychosocial approach to treatment might be enough to help the client recover, manage his or her anxiety, or prevent relapse. Clients should be told about risks such as seizures if alcohol or benzodiazepines are stopped abruptly.

DRUG INTERACTIONS

A drug interaction occurs when one drug alters the action or effects of another drug also present in the body. Some interactions are trivial, while others can be dangerous and possibly life-threatening.

Drugs taken together:

- can act independently of each other. For example, alcohol does not seem to interfere with the action of vitamins or oral contraceptives, or vice versa.
- can increase each other's effects. This could happen because they affect the brain in the same way or because one drug increases the concentration of the other in the body. For instance, alcohol and antihistamines are both central nervous system depressants. Therefore, the combination can increase both the desired effects of the drugs (e.g., disinhibition or decreasing of self-control) as well as the side-effects (e.g., drowsiness).
- can decrease each other's intended effects (an antagonistic effect). This could occur when one drug "blocks" or prevents another drug from producing its effect. It could also happen when two drugs have opposite effects on the brain (e.g., alcohol-induced drowsiness versus caffeine-induced alertness).

Consequences of drug interactions

An important factor in choosing a medication for someone with concurrent disorders is to pay attention to potential toxic interactions between the prescribed medication and the drugs of abuse. This is important in case the person relapses on the substance while taking prescribed psychiatric medication.

Medication

In some cases, drugs do interact but the result does not noticeably affect the person. However, combining substances of abuse, which can have toxic effects on their own, with prescription medications often has consequences that are much more serious. The most common toxic effects are:

- central nervous system depression, which, at its mildest, is drowsiness, but in its more severe form, can lead to a coma
- respiratory depression, which can lead to the person stopping breathing altogether
- cardiac effects, such as blood vessels constricting or dilating, or changes in heart rhythm that can lead to the heart stopping
- decreased seizure threshold, meaning that the brain can have a seizure more easily
- psychiatric effects, such as psychosis.

Some of the more common combinations and their effects are listed below.

STIMULANTS AND ANTIDEPRESSANTS

If a stimulant, such as cocaine or methylphenidate, is taken with a monoamine oxidase inhibitor (MAOI) antidepressant, a hypertensive reaction (high blood pressure) can occur. There have been many reports of rapid onset of headaches and severe hypertension when amphetamines are consumed by people who are taking MAOIs, some with fatal outcomes from cerebral hemorrhage (bleeding in the brain). The combination of a stimulant and a tricyclic antidepressant can cause an increased heart rate.

CANNABIS AND ANTIPSYCHOTICS

Marijuana can decrease the effectiveness of antipsychotic drugs and increase the risk of relapse. Taken with certain antipsychotic drugs, marijuana can also lead to marked hypotension (low blood pressure) and increased disorientation. There can also be additive effects with anticholinergics and other medications that have anticholinergic side-effects, leading to such symptoms as increased dry mouth, urinary retention and constipation.

TOBACCO AND ANTIPSYCHOTICS

Smoking decreases the blood concentration level of certain antipsychotics by 20 to 100 per cent, so smokers require higher doses. If a person reduces or quits smoking while taking an antipsychotic, the blood concentration levels of the drug will increase, leading to increased side-effects and possibly toxicity. Therefore, dose decreases are usually required, but must be monitored closely.

TOBACCO AND BENZODIAZEPINES

Some of the substances in tobacco can stimulate the liver enzymes that metabolize diazepam and chlordiazepoxide. This causes them to clear from the body more quickly, leading to a need for higher doses.

CAFFEINE AND LITHIUM

Caffeine acts as a diuretic, which can worsen incontinence. This affects water balance and can therefore affect lithium levels. Caffeine can also increase excretion of lithium from the kidneys and lead to lithium tremor. People who take lithium may still have some caffeine in their diet, but it is important that they do not drastically change their intake from day to day.

ONGOING TREATMENT

Clients and their families are often concerned about how long they will be taking medications. In some situations, the treatment will be short-term, as in the case of a sleeping pill for temporary insomnia. For a first episode of depression, medication is recommended for at least one year. For bipolar disorder and schizophrenia, the period of treatment is usually indefinite to prevent symptoms from returning. In the case of a first-episode psychosis, it can be difficult to distinguish between a drug-induced psychosis and schizophrenia. If a client does not have symptoms for several months, it may be possible to slowly taper and then stop the medication, with close monitoring.

Many mental health problems are lifelong conditions, so treatment with medications is often indefinite. Once an acute episode has been successfully treated, you, your relative and the treatment team need to watch for any signs of possible relapse.

STOPPING MEDICATION

People are often ambivalent about staying on their medications. Reasons for the ambivalence include:

- unpleasant side-effects
- feeling well and no longer seeing the need to take medications
- messages from peers (e.g., 12-step peers) that you should be able to cope without any substances, including prescribed ones
- concerns about interactions with alcohol or other substances.

Families should encourage their relatives to talk about problems with medications — with the hope that they will fully explore what could happen if they suddenly decide to stop taking a medication. For clients who choose not to take their medication:

- Acknowledge they have a right to choose not to use any medication.
- Stress that they owe it to themselves to make sure their decision is well thought out. (It is an important decision about their personal health and they need to discuss it with their doctor.)
- Ask their reason for choosing not to take the medication.

Medication

- Don't accept "I just don't like pills." Tell them you are sure they wouldn't make such an important decision without having a reason.
- Offer as examples reasons others might choose not to take medication. For instance, they:
 - don't believe they ever needed it (i.e., they were never mentally ill)
 - don't believe they need it anymore (i.e., they are cured)
 - don't like the side-effects
 - fear the medication will harm them
 - struggle with objections or ridicule of friends and family members
 - feel taking medication means they're not personally in control.

Medication is often an important part of a treatment plan for concurrent disorders, but finding the most effective medication, or combination of medications, can be a long, frustrating process. You can help by learning about the benefits and risks of the medications that your relative is taking, and by talking with your relative and the treatment team about how the medication is working, and the nature and severity of side-effects. Make sure the medication and dosage are reviewed regularly. If you are not satisfied, you and your relative can ask for a second opinion.

REFERENCES

National Institute of Mental Health. (2005). *Medications*. Bethesda: MD. National Institute of Mental Health, National Institutes of Health, U.S. Department of Health and Human Services.