

Facts about Antipsychotic Medications

Introduction

Antipsychotic medications (also referred to as major tranquilizers or neuroleptics) are a class of drugs commonly used to treat serious psychiatric disorders. These drugs were discovered in the 1950's and have since been used extensively with a variety of psychiatric populations. Antipsychotics are especially useful in the treatment of schizophrenia, schizoaffective disorder, and mania with psychosis. Antipsychotics are not a "cure" for psychiatric disorders. However, most clients who are prescribed these medications experience some relief from their symptoms.

The Clinical Effects of Antipsychotic Medications

Antipsychotic medications are used primarily for reducing psychotic (positive) symptoms of schizophrenia and schizoaffective disorder, such as hallucinations, delusions, and bizarre behavior. These medications sometimes also improve negative symptoms of these disorders, such as social withdrawal and poor attention. Antipsychotics are used most often for the treatment of schizophrenia and schizoaffective disorder, although clients with other disorders, such as bipolar disorder and major depression, may also benefit from them. When antipsychotics are used in the treatment of bipolar disorder or major depression, it is usually in combination with other medications (such as mood stabilizers or antidepressants).

There are two major uses for antipsychotic medications:

1. reducing acute (severe) symptoms to a level where the symptoms are more manageable; and
2. preventing symptom relapses and rehospitalizations.

Reducing Acute Symptoms

When a client has severe psychotic symptoms, such as during a relapse, antipsychotics are given. If the client has already been receiving these drugs, the dosage may be increased. Sometimes the clinical effects of antipsychotics are quite rapid, with improvements apparent in as little as one or two days. Usually, however, several weeks of antipsychotic treatment are needed to reduce symptoms significantly.

Preventing Symptom Relapses

Even after symptoms have been controlled by antipsychotics, the medication can prevent future relapses. For example, about seven in every ten people (70 percent) with schizophrenia or schizoaffective disorder who are not on antipsychotics relapse over a one-year period, but only three in ten people (30 percent) who are taking the medication relapse. Thus, antipsychotics can help many clients stay out of the hospital and improve their overall functioning.

How Are Medications Taken?

Antipsychotics are usually taken orally or with long-acting injections (taken every two to four weeks). In emergency situations, antipsychotics can also be given in higher doses by injections, although the advantage of the mode of administration is not clearly established.

Types of Antipsychotic Medications

There are many different types of antipsychotic medications. Most antipsychotic drugs have the same beneficial effects on symptoms and reducing relapse, although there is

evidence that Clozaril has unique effects on treatment-refractory symptoms (see section below on Clozaril). While most antipsychotics have similar clinical effects, some medications are more potent than others. Thus, larger amounts of low potency drugs are given than high potency drugs. The chart below contains the brand names, chemical names, and daily oral dosage range for some of the most commonly prescribed antipsychotic medications.

ANTIPSYCHOTIC MEDICATIONS

Brand Name	Chemical Name	Estimated Dosage Ratio*	Average Daily Dosage (mg/day)
Abilify	aripiprazole	**	15-30
Clozaril	clozapine	**	200-900
Geodan	ziprasidone	**	60-160
Haldol***	haloperidol	1:50	1-40
Loxitane	loxapine	1:10	4-250
Mellaril	thiroidazine	1:1	50-600
Moban	molindone	1:10	15-250
Navane	thiothixene	1:20	6-60
Prolixin***	fluphenazine	1:50	1-40
Risperdal	risperdone	**	1-8
Serentil	mesoridazine	1:2	25-300
Seroquel	quetiapine	**	300-600
Stelazine	trifluoperazine	1:20	4-60
Thorazine	chlorpromazine	1:1	50-1250
Trilafon	perphenazine	1:10	8-64
Zyprexa	zolanzapine	**	5-10

* Estimated dosage ration in relation to Thorazine. For example, a dose of 10mg of Prolixin is equivalent to 500mg of Thorazine, since Prolixin is fifty times as potent as Thorazine.

** These medications have different mechanisms of action that the other antipsychotic medications, and therefore their dosage range is not comparable.

*** Also available in long-acting injections.

Side Effects

Antipsychotic medications, like other drugs for treating other illnesses, can cause undesired side effects. Some side effects include: Drowsiness, muscle stiffness, dizziness, dry mouth, mild tremors, restlessness, increased appetite, blurred vision, and sexual difficulties. Not all clients taking medication experience side effects. In many cases the side effects are temporary, especially if they are treated with side-effects medications. Sometimes the medication dosage needs to be reduced because of side effects or a different type of medication must be given. When side effects are detected, the physician should be consulted as soon as possible.

Medications for Side Effects

Two types of medications are commonly used to treat the "extrapyramidal" side effects of antipsychotics (such as muscle stiffness, mild tremors, and increased salivation): anticholinergics and dopamine agonists. The specific medications and daily-dose ranges are provided in the chart below.

MEDICATIONS FOR EXTRAPYRAMIDAL SIDE EFFECTS OF ANTIPSYCHOTICS

Type of Drug	Brand Name	Chemical Name	Average Daily Dosage (mg/day)
Anticholinergic Drugs	Artane	trihexyphenidyl	5-15
	Benedryl	disphenhydramin	50-300
	Cogentin	benztropine	0.5-8
	Kemadrin	procyclidine	5-20
Dopamine Agonists	Symmetrel	Amatadine	40-100

One side effect of antipsychotics that can be especially disturbing is akathisia. This side effect is characterized by restlessness and difficulty sitting still and an uncomfortable feeling of agitation. Side-effect medications used to treat other side effects of antipsychotics are sometimes less effective for akathisia. One strategy for treating akathisia is to lower the dose of antipsychotic medication. Another strategy is to prescribe other medications, including bet blockers (such as Inderal, Tenormin, or Corgard) or benzodiazepines (such as Ativan or Valium). Side effect medications can also cause mild side effects. The following chart summarizes the most common side effects associated with each of these medications.

POSSIBLE SIDE EFFECT OF SIDE EFFECT MEDICATIONS

Drug Class	Side Effects
Anticholinergics	Dry mouth, constipation, blurry vision, drowsiness, urinary retention, memory loss
Dopamine Agonists	Increase in psychotic symptoms
Beta Blockers	Fatigue, depression
Benzodiazepines	Drowsiness, psychological or physiological dependence, psychomotor impairment, memory loss

Tardive Dyskinesia

One side effect of special concern is tardive dyskinesia (TD). This is a neurological syndrome in which the person has involuntary muscle movements usually in the tongue, mouth, or lips, the trunk, or in the extremities, such as hands, fingers or toes. In most cases, the movements associated with TD are mild. In some cases of more severe TD, some clients are distressed, while others are not.

The risk of developing TD is low during the first year of treatment with antipsychotics, but increase after this period. Most studies suggest that between one or two of every ten clients (10-20 percent) develops TD. The chances of developing TD increased with the amount of time the person is on antipsychotics and the dosage level.

TD seldom worsens when the client is maintained on the lowest effective dose of antipsychotic medication. Clozaril does not appear to cause TD and may even improve the condition in some clients. It is not known at this time whether Risperdal, Seroquel, or Zyprexa cause TD. Other than treating with the lowest effective dose or considering a switch to Clozaril, there are not established treatments for TD.

Clozaril

Clozaril (clozapine) is a unique antipsychotic drug that has recently become available in the United States (it has been used in Europe for more than twenty years). Some research has found that Clozaril is an especially effective medication for treatment refractory symptoms, such as hearing voices or severe social withdrawal. Although Clozaril is most often prescribed for persons with schizophrenia or schizoaffective disorder, it can also be given for other psychiatric disorders.

Some of the side effects of Clozaril are different from other antipsychotic medications. Side effects of Clozaril include: drowsiness, increased salivation, dizziness, stiffness, a slight increase in body temperature (temperatures between 98.6 and 101 degrees Fahrenheit) changes in blood pressure, constipation, weight gain, headache, tachycardia (rapid heart rate), cataplexy (sudden loss of muscle tone), and seizures.

One important side effect of Clozaril that occurs in a small percentage of people is a reduction in number of white blood cells (a condition call agranulocytosis). If this side effect begins to develop, the person must be taken off of Clozaril (and switched to another antipsychotic), because white blood cells are necessary to fight diseases. Clients who develop agranulocytosis should not be given Clozaril again. In order to make sure that agranulocytosis is not developing, the client's blood must be checked weekly with a simple blood test.

Precautions When Taking Antipsychotics

Alcohol should be used in moderation (not more than two drinks per week), because higher levels can reduce the effectiveness of antipsychotics, leading to relapses. Antipsychotic medications can enhance the effects of certain other medications, including: anticoagulants, anticonvulsants, beta-blockers, and diuretics. The physicians should be consulted if any of these medications are taken in combination with antipsychotics. Antipsychotics can also increase vulnerability to sunburn. Sun block should be used if the client will be exposed to the sun for several hours or more.

How Do Antipsychotic Medications Work?

Scientists do not have a full understanding of why antipsychotic medications are effective. However, all of these medications reduce the action of a particular neurotransmitter (a chemical in the brain for communication between nerve cells) called dopamine. Unique antipsychotics Clozaril, Risperdal, Zyprexa, and Seroquel) have effects both on dopamine and on another neurotransmitter, serotonin. It is possible that dopamine and serotonin are involved in the production of psychotic symptoms.

Importance of Regular Medication

Taking medication on a regular basis can help prevent symptoms from returning or getting worse. It can be helpful to take medication at the same time each day so that it is part of the client's daily routine. It is also important for the client to meet regularly with his or her physician to have symptoms checked, discuss side effects, and have adjustments in medication made when necessary.

Common Questions about Antipsychotic Medications

What if the Client Misses a Dose of Medications?

The client should consult with his or her physician to find out what to do if a dose of medication is missed.

Are Antipsychotic Medications Addictive?

Antipsychotic drugs are not addictive. People who take these medications do not develop tolerance to these drugs (do not require a higher dose to achieve the same effects). If a decision is made to stop antipsychotic medication, the medication is usually tapered gradually. However, stopping antipsychotic medications increases the risk of relapse for people with schizophrenia or schizoaffective disorder.

How Long Must Antipsychotic Medications Be Taken?

When antipsychotics are used in the treatment of schizophrenia and schizoaffective disorder, these medications must often be taken throughout much of the person's life. This is similar to diabetes, in which a person must take insulin daily. Many clients with other psychiatric disorders (such as bipolar disorder and major depression) need to take antipsychotic medication for only a temporary period of time, such as several weeks or months.

Consult the client's physician about any questions you have concerning this handout.