Psychoactive Drug Classifications

What is a Psychoactive Drug?

A psychoactive drug is any chemical substance that acts primarily upon the central nervous system to alter perception, mood, consciousness, or behavior. Only those drug classes that are used by medical doctors at the prescription level will be discussed in this fact sheet. Many illegal street drugs are also psychoactive.

Antidepressant – Noradrenergic/Serotonergic Agents

This is a newer class of antidepressants. They have been designed to actually stimulate the brain to create more serotonin (or norepinephrine) rather than causing reuptake inhibition. The most popular drugs in this class are: Remeron, Avanza, Zispin, and Tolvon.

The mechanism by which this drug acts is to block the presynaptic alpha-2 adrenergic receptors while at the same time blocking certain serotonin receptors. Significant side effects have been reported from these drugs and those side effects can be too troublesome for some to continue use of the drug. Additionally, there are reports of significant negative withdrawals when an individual misses a dose (within just a few hours). Some have reported quasi-psychotic symptoms as one of the withdrawal effects if proper titration is not used to exit drug use.

Antidepressant – Monoamine Oxidase Inhibitors (MAOI)

This class of depression fighting drugs is used as sparingly as possible by medical doctors. Although it has powerful affects fighting severe depression and atypical depression, it also has serious and often deadly interactions between many foods and other drugs. This is a drug of last resort when all attempts to employ SSRI agents and Tricyclics have failed. This drug class has shown effectiveness against Social Anxiety Disorder and Agoraphobia – something that SSRI drugs typically cannot affect.

This entire class of drugs contains an FDA Black Box warning for food and drugs lethality.

Antidepressant – Selective Serotonin Reuptake Inhibitor (SSRI)

It has been hypothesized by some that one of the reasons for Major Depressive Disorder is an abnormal reduction of the neurotransmitter serotonin. It is scientifically unclear why serotonin is improperly balanced in the brain. And, it is questionable whether the method employed by SSRI drugs is efficacious for resolving the issue. Some research indicates that when an SSRI antidepressant is administered, over time the decreased serotonin level returns – thus, the drug becomes ineffectual in treatment of depression (no more than a placebo effect).

The response to this problem by the pharmaceutical community (the continued reduction of serotonin over time) has been to add another drug to the situation. That drug is usually Abilify – which is an
antipsychotic agent. This is a dubious solution to the problem since Major Depressive Disorder is far from a psychotic episode.

The mechanism associated with SSRI drugs is to cause the serotonin that currently exists in the brain to “stall” in the middle of the synaptic gap, rather than to cause the production of more serotonin (a simple increase in serotonin introduced into the body is not efficient since serotonin itself will not cross the blood-barrier – it is only synthesized in the brain). Typically, if serotonin is to be “created” in a patient the substance of choice would need to be a derivative of tryptophan (which the brain can use to create serotonin).

Approximately 66% of all people who use an SSRI antidepressant report that over time their depression returns to the same state it was before they began treatment. Thus, the SSRI antidepressant method of treating major depression is largely ineffectual. Side effects of the drug cause significant questions about its continued use for treatment of depression.

This entire class of drugs contains an FDA Black Box warning for increased suicidal ideation and suicide attempts.

**Antidepressant – Selective Serotonin/Norepinephrine Reuptake Inhibitor (SSNRI)**

This drug class is close to the SSRI class with the addition of the reuptake modification of norepinephrine in addition to the reuptake modification of serotonin. All of the information related to SSRI antidepressants also relates to this drug class.

This entire class of drugs contains an FDA Black Box warning for increased suicidal ideation and suicide attempts.

**Antidepressant – Tetracyclic Antidepressants**

This is an older class of antidepressants and is currently being replaced by the SSRI class. It is still used in individuals who are resistant to the effects of SSRI drugs. The abuse potential for tetracyclics is very low. This is not a drug of abuse. Side effects are one of the reasons that the drug is being replaced by the more modern SSRI drugs. Tetracyclics are more broad-based in their effective range of treatment than newer SSRI drugs.

This drug is called a tetracyclic because it contains four rings of atoms in its chemical structure.

**Antidepressant – Tricyclic Antidepressants**

This drug class is very similar to tetracyclics in chemical structure and applicability. Instead of containing four rings of atoms in its chemical structure, tricyclics contain only three rings. Other information related to tetracyclics applies to tricyclics.

*There are other classes of Antidepressant drugs. Those drugs are not used as often as the classes of drugs found on this list.*

**Antipsychotic**
This class of drugs is also called neuroleptics. They are primarily used to manage and reduce symptoms of psychosis, especially delusional states and hallucinations. They are most effective when used with Schizophrenia and Bipolar I Disorder.

There are two groups of antipsychotic drugs: typical and atypical antipsychotics. The typical antipsychotics are older and are slowly being replaced by atypical antipsychotics. Both groups block dopamine as their primary mechanism (although other receptors are also engaged).

Use of antipsychotic drugs comes with a price. Most users experience significant side effects – some of them mental and psychological, and others that are physical (including lowered life expectancy and diabetes). The mental, emotional and psychological side effects are often significant and cause individuals who experience psychosis to periodically stop using the drug to get away from the side effects of the drug. This, of course, results in the reappearance of the symptoms of the psychotic disorder. The individual typically battles with either the side effects of the drug of the delusions and hallucinations of their disorder.

Attempts are being made to formulate antipsychotic drugs that have lesser side effects but still result in lowered symptoms of an individual’s disease. These efforts are difficult and slow-going.

**Azaspirodecanedione**

This class of psychoactive drug is an anxiolytic designed to treat anxiety symptoms, and especially Generalized Anxiety Disorder. This drug class is not usually used for a broad spectrum of Anxiety Disorders including Obsessive-Compulsive Disorder, Social Anxiety Disorder, and others. It has been found to be ineffectual in those cases. It is only rarely scripted for treatment of depression, and then usually in conjunction with elevated anxiety symptoms. It is not prescribed in cases of psychosis.

Side effects are numerous and it appears that there are significant withdrawals from sustained use over a prolonged period of time (although manufacturers state that the drug class is not addictive).

This is a newer class of drugs for treatment of anxiety states. It is an effort to replace the benzodiazepine class of drugs due to their extreme addiction potential.

**Benzodiazepine**

This drug class is used for relief of anxiety symptoms and for major Anxiety Disorders. It is also used at times for depression. It is not prescribed for psychosis. Benzodiazepines are an older class of drugs designed to curb anxiety. There is growing concern regarding their highly addictive qualities. Benzodiazepines attach to the GABAa receptor site – a locus of significant addictive potential. Among the benzodiazepines, both Xanax and Klonopin have become street-level drugs of abuse as scripted individuals abuse the drug and run out of their prescribed medications too early.

Due to the almost certain addictive qualities of the drug, both the manufacturers and watchdog drug groups indicate that benzodiazepines should only be used for a short period of time. Some studies indicate that at least some benzodiazepines are highly addictive after only fifteen days of use in some patients. Most users are addicted by the end of two months. Withdrawals can be significant and may even include seizures and significant mood and personality alterations.
Some benzodiazepines are also used as anti-seizure medication to supplement other anti-seizure meds that a person may be taking. Klonopin is the most common used for this purpose.

**Hypnotic**

Sometimes this drug class is also called a sedative or a sedative-hypnotic. Hypnotics are typically used as sleep-inducing agents. The most common drug in this class is Ambien. All hypnotic drugs are habit-forming. One of the most common withdrawals from a hypnotic drug is insomnia – the very thing that the hypnotic was prescribed for in the first place. This increases the psychological need for the drug. Some studies have indicated that the insomnia associated with withdrawals may last as long as three months, making it very difficult for the drug user to part with the drug. This is especially true if the drug has been over-scripted. Most hypnotics should not be scripted for an elongated period of time (more than a month). This is due to the addictive properties of the drug.

Medical doctors who prescribe hypnotics (such as Ambien) for prolonged periods of time will create a seriously addicted patient who will find it difficult and troubling to remove themselves from the drug. As a result, some medical doctors have supplemented hypnotics with benzodiazepines for sleeping medication. Each drug would be switched off on a regular basis to (hopefully) prevent addiction. This process, however, often results in duel addiction to both the hypnotic and the benzodiazepine.

Halcion, Xanax, and Valium are common benzodiazepines that are used for sleeping disorders.

**Narcotic**

Most literally, narcotics are opiates and have morphine-like affects. Codeine is the most commonly prescribed narcotic. The human body does not directly use codeine but converts codeine into morphine. (Methylmorphine is the active agent.) All narcotics are extremely addicting and are strictly controlled by DEA regulations. Codeine is a Schedule #2 controlled substance. Heroin is the most widely abused narcotic on the streets.

Narcotics are typically used for reduction of pain. However, they contain psychoactive qualities, and, thus, they are included in this fact sheet. They are not typically used for any psychological or mental condition. They do, however, result in significant life-altering qualities when an individual becomes addicted to them. The typical reason for addiction is due to the psychoactive properties of the drug and not due to its pain killing capabilities. Often, people tend to continue using narcotics long after the pain condition is gone.

A significant number of narcotics contain codeine. The destructive properties of codeine are often underestimated. Codeine is far more lethal than is published. A lethal dose of codeine may be contained in a simple ten-day script for the drug (depending on dosage). LD50 for codeine is 800mg. Used in conjunction with alcohol the lethality of the drug is greatly magnified. Addiction ensues very rapidly after an individual starts taking a narcotic substance (in most cases).