

## Clinical Pharmacology of Anti-Depressants

Ramona Andrus\*

Department of Pharmacy, Panjab University, Chandigarh, India

### Commentary

**Received:** 25-Aug-2022,  
Manuscript No. JHCP-22-  
74902; **Editor assigned:** 29-  
Aug-2022, Pre QC No. JHCP-  
22-74902 (PQ); **Reviewed:** 12-  
Sep-2022, QC No. JHCP-22-  
74902; **Revised:** 21-Sep-  
2022, Manuscript No. JHCP-  
22-74902 (R); **Published:** 30-  
Sep-2022, DOI:  
10.4172/2347-226X.8.5.004.

**\*For Correspondence:**

Ramona Andrus, Department  
of Pharmacy, Panjab  
University, Chandigarh, India

**E-mail:**

Andrusmona 89@gmail.com

### DESCRIPTION

Major depressive disorders, some anxiety disorders, some chronic pain conditions, and some addictions are all treated with antidepressants. Dry mouth, weight gain, wooziness, headaches, sexual dysfunction, and emotional blunting are typical adverse effects of antidepressants. When children, teenagers, and young adults use these medications, there is a modest increase in the risk of suicidal thoughts and actions. Any antidepressant can cause a withdrawal syndrome after stopping use, which resembles recurrent depression. Antidepressant reviews for adult depression have found benefits in some cases but not in others. Uncertainty surrounds the evidence of benefit in kids and teenagers. In a 2016 meta-study, it was discovered that the twenty-one most often prescribed antidepressants were superior to placebo for treating people with severe depressive disorder. In the medical profession, there is disagreement over how much of the antidepressant effects that have been reported may be attributable to the placebo effect, with others asserting that there is no additional benefit.

The monoamine hypothesis, which dates back to the 1950s and 1960s, is the first and best-known scientific theory of how antidepressants work. It claims that depression is caused by an imbalance, and most frequently a deficiency of the monoamine neurotransmitters serotonin, norepinephrine, and/or dopamine. Serotonin specifically has been linked to this, as seen in the serotonin hypothesis of depression. The monoamine hypothesis was first put forth based on observations that certain hydrazine anti-tuberculosis drugs like iproniazid, which stop the breakdown of monoamine neurotransmitters, appear to have antidepressant effects. Reserpine, a drug that depletes monoamine neurotransmitters, also causes depressive effects in people. The monoamine hypothesis is theoretically supported by the majority of antidepressants that are now on the market and which have monoaminergic activities.

**Medical uses**

- Major depressive illness and other ailments, such as some anxiety disorders, some chronic pain problems, and some addictions, are all treated with antidepressants. Antidepressants are frequently taken in conjunction with other medications.
- People who are also anxious or irritable should be treated with norepinephrine reuptake inhibitors, and those who experience a loss of energy and enjoyment of life should be treated with norepinephrine and dopamine enhancing medications, according to proponents of the monoamine hypothesis of depression.
- Antidepressants may be marginally beneficial for treating people who have both depression and alcohol dependency.
- People who want to quit smoking can use bupropion.
- Some narcolepsy symptoms can also be managed with the aid of antidepressants.
- Although further research is needed, antidepressants may be used to treat pain in people with active rheumatoid arthritis.
- Antidepressants have been demonstrated to alleviate depression in people with physical illnesses more well than a placebo, albeit reporting bias may have inflated this conclusion.

**Adverse effects**

An excess serotonin levels leads to mania, restlessness, agitation, emotional lability, sleeplessness, and confusion is known as serotonin toxicity, and it can be brought on by almost any medicine that affects serotonin control. Despite being serious, the disease is rare and typically only manifests when taking high doses of medication or at the same time as other prescriptions. It is rarely lethal if prompt medical attention is given (within roughly 24 hours). Antidepressants appear to roughly double the risk of developing diabetes.

Tricyclics and Selective Serotonin Reuptake Inhibitors (SSRI's) have been linked to drug-induced QT prolongation, which is more common in older persons. Torsades are a specific type of irregular heart rhythm that can result in abrupt cardiac arrest.

Monoamine Oxidase Inhibitors (MAOIs) frequently interact strongly (and even fatally) with a wide range of prescribed drugs and over-the-counter medicines. Tyramine-rich foods, such as mature cheese, cured meats, or yeast extracts, may trigger a potentially fatal hypertension if consumed with them. Lower doses may only cause a headache as a result of an increase in blood pressure.