

Memantine Hcl Cas No. : 41100-52-1

Memantine is used to treat moderate to severe confusion (dementia) related to Alzheimer's disease. It does not cure Alzheimer's disease, but it may improve memory, awareness, and the ability to perform daily functions. This medication works by blocking the action of a certain natural substance in the brain (glutamate) that is believed to be linked to symptoms of Alzheimer's disease.

Active Pharmaceuticals Ingredients Manufacturers



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Taj Pharmaceuticals Ltd.

Memantine Hcl

CAS No. : 41100-52-1

**Synonyms**

1,3-Dimethylaminoadamantane hydrochloride; 3,5-Dimethyl-1-aminoadamantane hydrochloride; 3,5-Dimethyltricyclo(3.3.1.1(3,7))decan-1-amine hydrochloride

Chemical data

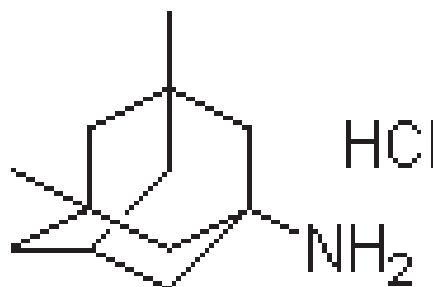
CAS Number 41100-52-1

Molecular Formula C₁₂H₂₁N.HCl

Molecular Weight 215.77

Molecular Structure

Memantine hydrochloride,
1,3-Dimethylaminoadamantane hydrochloride,
3,5-Dimethyl-1-aminoadamantane hydrochloride,
3,5-Dimethyltricyclo(3.3.1.1(3,7))decan-1-amine hydrochloride,

**DOSAGE**

The usual starting dose of memantine is 5 mg once daily. The dose usually is increased to 5 mg twice daily, then 5 mg and 10 mg as separate doses daily, and finally 10 mg twice daily. Memantine can be taken with or without food.

The dosage of memantine hydrochloride shown to be effective in controlled clinical trials is 20 mg/day. The recommended starting dose is 5 mg once daily. The recommended target dose is 20 mg/day. The dose should be increased in 5 mg increments to 10 mg/day (5 mg twice a day), 15 mg/day (5 mg and 10 mg as separate doses), and 20 mg/day (10 mg twice a day). The minimum recommended interval between dose increases is one week. can be taken with or without food.

SIDE EFFECTS

- # Fatigue
- # Pain
- # Hypertension
- # Headache
- # Constipation
- # Vomiting
- # Back pain
- # Somnolence

Tiredness, body aches, dizziness, constipation, and headache may occur. If any of these effects persist or worsen, notify your doctor or pharmacist promptly.

Remember that your doctor has prescribed this medication because he or she has judged that the benefit to you is greater than the risk of side effects. Many people using this medication do not have serious side effects.

A very serious allergic reaction to this drug is unlikely, but seek immediate medical attention if it occurs. Symptoms of a serious allergic reaction may include: rash, itching, swelling, severe dizziness, trouble breathing.



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This is not a complete list of possible side effects. If you notice other effects not listed above, contact your doctor or pharmacist.

PRECAUTIONS

Before taking memantine, tell your doctor or pharmacist if you are allergic to it; or if you have any other allergies. Before using this medication, tell your doctor or pharmacist your medical history, especially of: kidney disease, liver disease, severe urinary tract infections. This drug may make you dizzy; use caution engaging in activities requiring alertness such as driving or using machinery. Limit alcoholic beverages. This medication should be used only when clearly needed during pregnancy. Discuss the risks and benefits with your doctor. It is not known whether this drug passes into breast milk. Consult your doctor before breast-feeding.

This medication should not be used if you have certain medical conditions. Before using this medicine, consult your doctor or pharmacist if you have: severe kidney disease.

Before using this medication, tell your doctor or pharmacist your medical history, especially of: kidney problems, severe liver disease, severe urinary tract infections, recent dietary change (from a high-protein diet to a vegetarian diet).

This drug may make you dizzy; use caution engaging in activities requiring alertness such as driving or using machinery. Limit alcoholic beverages.

This medication should be used only when clearly needed during pregnancy. Discuss the risks and benefits with your doctor.

INTERACTION

Before using this medication, tell your doctor or pharmacist of all prescription and nonprescription/herbal products you may use, especially of: amantadine, carbonic anhydrase inhibitors (e.g., acetazolamide, methazolamide), dextromethorphan, ketamine, sodium bicarbonate. Do not start or stop any medicine without doctor or pharmacist approval.

Before using this medication, tell your doctor or pharmacist of all prescription and nonprescription/herbal products you may use, especially of: amantadine, carbonic anhydrase inhibitors (e.g., acetazolamide, methazolamide), ketamine, sodium bicarbonate.

Check the labels on all your medicines (e.g., cough and cold products) because they may contain dextromethorphan, which may increase your risk of side effects when taken with memantine. Ask your pharmacist about the safe use of those products.

This document does not contain all possible interactions. Therefore, before using this product, tell your doctor or pharmacist of all the products you use. Keep a list of all your medications with you, and share the list with your doctor and pharmacist.

DRUG DESCRIPTION

Memantine is the first in a novel class of Alzheimer's disease medications acting on the glutamatergic system by blocking NMDA glutamate receptors. Memantine was first synthesized and patented by Eli Lilly and Company in 1968 (as cited in the Merck Index), and then developed by Merz in collaboration with Neurobiological Technologies



The tablets also contain the following inactive ingredients: microcrystalline cellulose/colloidal silicon dioxide, talc, croscarmellose sodium, and magnesium stearate. In addition the following inactive ingredients are also present as components of the film coat: hypromellose, titanium dioxide, polyethylene glycol 400, FD&C yellow #6 and FD&C blue #2 (5 mg tablets), and hypromellose, titanium dioxide, macrogol/polyethylene glycol 400 and iron oxide black (10 mg tablets). Namenda oral solution contains memantine hydrochloride in a strength equivalent to 2 mg of memantine hydrochloride in each mL. The oral solution also contains the following inactive ingredients: sorbitol solution (70%), methyl paraben, propylparaben, propylene glycol, glycerin, natural peppermint flavor #104, citric acid, sodium citrate, and purified water.

Memantine is an oral medication for treating patients with Alzheimer's disease. Other medications used for Alzheimer's disease affect acetylcholine, one of the neurotransmitter chemicals that nerve cells in the brain use to communicate with one another. These drugs - galantamine (Razadyne - formerly known as Reminyl), donepezil (Aricept), rivastigmine (Exelon), and tacrine (Cognex)-- inhibit the enzyme acetylcholinesterase that destroys acetylcholine and thereby increases the effects of acetylcholine. Memantine's effects are independent of acetylcholine and acetylcholinesterase.

Glutamate is the main excitatory neurotransmitter in the brain. It is believed that too much stimulation of nerve cells by glutamate may be responsible for the degeneration of nerves that occurs in some neurological diseases such as Alzheimer's disease. Like other neurotransmitters, glutamate is produced and released by nerve cells in the brain. The released glutamate then travels to nearby nerve cells where it attaches to a receptor on the surface of the cells called the N-methyl-D-aspartate (NMDA) receptor. Memantine blocks the receptor and thereby decreases the effects of glutamate. It is thought that by blocking the NMDA receptor and the effects of glutamate, memantine may protect nerve cells from excess stimulation by glutamate



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The Controlled Substances Act (CSA) was enacted into law by the Congress of the United States as Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970.[1] The CSA is the federal U.S. drug policy under which the manufacture, importation, possession, use and distribution of certain substances is regulated. The Act also served as the national implementing legislation for the Single Convention on Narcotic Drugs

This document plus the full buyer/ prescribing information, prepared for health professionals can be found at:

<http://www.tajapi.com>

or by contacting the sponsor, Taj Pharmaceuticals Limited., at:
91 022 30601000.

This leaflet was prepared by
Taj Pharmaceuticals Limited,
Mumbai (India).
MPSTJ278

Last revised: 29 August 2009