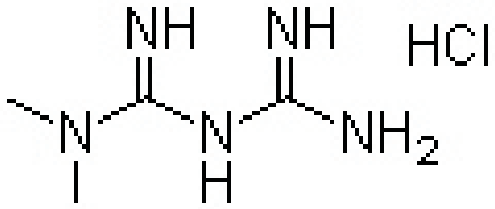
Taj Pharmaceuticals Ltd.

Metformin Hcl

CAS No. : 1115-70-4

Molecular Weight 165.62
CAS number 1115-70-4]
ATC code A10BA02
A10BD02 (with sulfonylureas)
A10BD03 (with rosiglitazone)
A10BD05 (with pioglitazone)
A10BD07 (with sitagliptin)
A10BD08 (with vildagliptin)
PubChem 4091
DrugBank APRD01099



Chemical data

Formula C4H11N5
Mol. mass 129.164 g/mol
165.63 g/mol (hydrochloride)
Synonyms 1,1-dimethylbiguanide
Pharmacokinetic data
Bioavailability 50 to 60% under fasting conditions
Metabolism None
Half life 6.2 hours
Excretion Active renal tubular excretion by OCT2

Metformin HCl is a medication that is often prescribed to treat diabetes. It is used for decreasing blood sugar levels in people with type 2 diabetes. Metformin HCl is an abbreviation for metformin hydrochloride.The medication works in several ways. It reduces the amount of sugar made by the liver, limits the amount of sugar absorbed into the body from the diet, and makes insulin receptors more sensitive (helping the body respond better to its own insulin). All of these effects cause a decrease in blood sugar levels.Metformin HCl is typically taken one to three times a day and comes in several forms and strengths. It comes in tablet form, two different long-acting forms, and a liquid version.

Using Metformin for Type 2 Diabetes

Type 2 diabetes is the most common type of diabetes (see Diabetes Types). It is also sometimes called adult-onset diabetes or noninsulin-dependent diabetes. Type 2 diabetes is a condition involving insulin resistance. With insulin resistance, the cells of the body do not respond to insulin as well as they normally should. As a result, the cells of the body do not remove sugar from the blood very well. This is why type 2 diabetics have high blood sugar.

Over time, high blood sugar can lead to a number of problems, including diabetic impotence, diabetic neuropathy, kidney failure, and heart disease (see Diabetes Complications). The cause of type 2 diabetes is not fully understood, although it is known that obesity and genetics play an important role.

There are many ways to treat high blood sugar in people with type 2 diabetes. Some diabetes medications force the pancreas to produce more insulin (see Alternatives to Metformin). These medications are effective, but can cause dangerously low blood sugar (hypoglycemia). Metformin works differently, having several effects in the body. The drug lowers blood sugar by the following actions:

* Decreasing the amount of sugar (glucose) made by the liver
* Decreasing the amount of sugar absorbed into the body (from food)
* Making insulin receptors more sensitive, helping the body respond better to insulin.

Because metformin does not force the pancreas to produce more insulin, it is much less likely to cause dangerously low blood sugar levels compared to many other diabetes medications (see Metformin and Blood Sugar).

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DOSAGE

Take metformin exactly as it was prescribed for you. Do not take the medication in larger amounts, or take it for longer than recommended by your doctor. Follow the directions on your prescription label.Take metformin with a meal, unless your doctor tells you otherwise. Some forms of metformin are taken only once daily with the evening meal. Follow your doctor's instructions.

metformin is only part of a complete program of treatment that also includes diet, exercise, and weight control. It is important to use this medicine regularly to get the most benefit.

Do not crush, chew, or break an extended-release tablet (Glucophage XR). Swallow the pill whole. It is specially made to release medicine slowly in the body. Breaking the pill would cause too much of the drug to be released at one time.

To be sure metformin is helping your condition, your blood will need to be tested on a regular basis. Your kidney function may also need to be tested. It is important that you not miss any scheduled appointments.
Always keep a source of sugar available in case you have symptoms of low blood sugar. Sugar sources include orange juice, glucose gel, candy, or milk. If you have severe hypoglycemia and cannot eat or drink, use an injection of glucagon. Your doctor can give you a prescription for a glucagon emergency injection kit and tell you how to give the injection.The drug should be taken at regular intervals according to the doctor's prescription.
For treating type 2 diabetes in adults, metformin (immediate release) usually is begun at a dose of 500 mg twice a day or 850 mg once daily. The dose is gradually increased by 500 mg weekly or 850 mg every two weeks as tolerated and based on the response of the levels of glucose in the blood.

The maximum daily dose is 2550 mg given in three divided doses. If extended tablets are used, the starting dose is 500 mg or 1000 mg daily with the evening meal. The dose can be increased by 500 mg weekly up to a maximum dose of 2000 mg (2500 mg of Fortamet) once daily or in two divided doses. Glumetza tablets are given once daily. Metformin should be taken with meals.

For pediatric patients 10-16 years of age, the starting dose is 500 mg twice a day. The dose can be increased by 500 mg weekly up to a maximum dose of 2000 mg. Glucophage XR has not been studied in children.

SIDE EFFECTS

The most common side effects with metformin are nausea, vomiting, gas, bloating, diarrhea and loss of appetite. These symptoms occur in one out of every three patients. These side effects may be severe enough to cause therapy to be discontinued in one out of every 20 patients. These side effects are related to the dose of the medication and may decrease if the dose is reduced.

A serious but rare side effect of metformin is lactic acidosis. Lactic acidosis occurs in one out of every 30,000 patients and is fatal in 50% of cases. The symptoms of lactic acidosis are weakness, trouble breathing, abnormal heartbeats, unusual muscle pain, stomach discomfort, light-headedness and feeling cold. Patients at risk for lactic acidosis include those with reduced function of the kidneys or liver, congestive heart failure, severe acute illnesses, and dehydration.

Get emergency medical help if you have any of these symptoms of lactic acidosis: weakness, increasing sleepiness, slow heart rate, cold feeling, muscle pain, shortness of breath, stomach pain, feeling light-headed, and fainting. Stop using metformin and get emergency medical help if you have any of these signs of an allergic reaction: hives; difficulty breathing; swelling of your face, lips, tongue, or throat.

Call your doctor at once if you have any of these serious side effects:

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*feeling short of breath, even with mild exertion;
*swelling or rapid weight gain; or
*fever, chills, body aches, flu symptoms.

Less serious side effects may include:

*headache or muscle pain;
*weakness; or
*mild nausesa, vomiting, diarrhea, gas, stomach pain.

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PRECAUTIONS

Before taking metformin,
* tell your doctor and pharmacist if you are allergic to metformin or any other medications.
* tell your doctor and pharmacist what other prescription and nonprescription medications, vitamins, nutritional supplements, and herbal products you are taking. Be sure to mention the medications listed in the IMPORTANT WARNING section and any of the following: amiloride (Midamor, Moduretic); antihistamines; beta-blockers such as atenolol (Tenormin), labetalol (Normodyne), metoprolol (Lopressor, Toprol XL), nadolol (Corgard), and propranolol (Inderal); calcium channel blockers such as amlodipine (Norvasc), diltiazem (Cardizem, Dilacor, Tiazac, others), felodipine (Lexxel, Plendil), isradipine (DynaCirc), nicardipine (Cardene), nifedipine (Adalat, Procardia), nimodipine (Nimotop), nisoldipine (Sular), and verapamil (Calan, Isoptin, Verelan); cimetidine (Tagamet); digoxin (Lanoxin, Lanoxicaps); furosemide (Lasix); hormone replacement therapy; insulin or other medications for diabetes; isoniazid (INH, Nydrazid); medications for asthma and colds; medications for mental illness and nausea such as fluphenazine (Prolixin), mesoridazine (Serentil), perphenazine (Trilafon), prochlorperazine (Compazine), promethazine (Phenergan), thioridazine (Mellaril), thiothixene (Navane), trifluoperazine (Stelazine), and triflupromazine (Vesprin); medications for thyroid disease; morphine (MS Contin, Roxanol, others); nicotinic acid; oral contraceptives (birth control pills); oral steroids such as dexamethasone (Decadron, Dexone), methylprednisolone (Medrol), and prednisone (Deltasone); phenytoin (Dilantin, Phenytek); procainamide (Procanbid); quinidine (Quinidex); quinine; ranitidine (Zantac); triamterene (Dyazide, Maxzide, others); or trimethoprim (Proloprim, Trimpex). Your doctor may need to change the doses of your medications or monitor you carefully for side effects.
* tell your doctor if you have or have ever had any medical condition, especially those mentioned in the IMPORTANT WARNING section.
* tell your doctor if you are pregnant, plan to become pregnant, or are breast-feeding. If you become pregnant while taking metformin, call your doctor.
* if you are using the extended release tablets, you should know that sometimes the tablet shell may appear in your stool. If this occurs, it is not harmful and will not affect the way the medication works.

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Metformin HCL

TAJ GROUP OF COMPANIES
TAJ PHARMACEUTICALS LIMITED.
Working For Healthier World™ INDIA

DRUG DESCRIPTION

Metformin comes as a tablet and an extended-release (long-acting) tablet to take by mouth. The regular tablet is usually taken with meals two or three times a day. The extended-release tablet is usually taken once daily with the evening meal. To help you remember to take metformin, take it around the same time(s) every day. Follow the directions on your prescription label carefully, and ask your doctor or pharmacist to explain any part you do not understand. Take metformin exactly as directed. Do not take more or less of it or take it more often than prescribed by your doctor.

Swallow metformin extended-release tablets whole; do not split, chew, or crush them.

Your doctor may start you on a low dose of metformin and gradually increase your dose not more often than once every 1-2 weeks. You will need to monitor your blood sugar carefully so your doctor will be able to tell how well metformin is working.

Note /Government Notification: These chemicals are designated as those that are used in the manufacture of the controlled substances and are important to themanufacture of the substances. For any (Control Substance) products Import and Export *** subjected to your country government laws /control substance ACT.

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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

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