

SPANBEC
(GLIMEPIRIDE 1/2/3 gm)

GENERIC NAME : Glimepiride

PHARMACOLOGICAL CATEGORY: sulfonylurea

THERAPEUTIC CATEGORY : Hypoglycemic

COMPOSITION AND PRESENTATION:

SPANBEC 1

Composition:

Each tablet contains Glimepiride 1 mg

Presentation:

30 Tablets x 5 Blisters

SPANBEC 2

Composition:

Each tablet contains Glimepiride 2mg

Presentation:

30 Tablets x 5 Blisters

SPANBEC 3

Composition:

Each tablet contains Glimepiride 3 mg

Presentation:

30 Tablets x 5 Blisters

MOLECULAR INTRODUCTION

Glimepiride, like glyburide and glipizide, is a "second-generation" sulfonylurea agent.

Glimepiride is used with diet to lower blood glucose by increasing the secretion of insulin from pancreas and increasing the sensitivity of peripheral tissues to insulin.

MECHANISM OF ACTION:

- It stimulates the pancreas beta cells to make more insulin and the insulin is secreted into the blood. Insulin causes sugar to leave the blood and enter cells throughout the body. It has also been shown to have pleiotropic effects. It makes the peripheral tissues more sensitive to insulin. Thus, it lowers the sugar level in the blood.
- Glimepiride likely binds to ATP-sensitive potassium channel receptors on the pancreatic cell surface, reducing potassium conductance and causing depolarization of the membrane. Membrane depolarization stimulates calcium ion influx through voltage-

sensitive calcium channels. This increase in intracellular calcium ion concentration induces the secretion of insulin.

INDICATION:

- For parallel use with insulin for the treatment of noninsulin-dependent (Type II) diabetes mellitus;
- For the treatment of hyperglycemia that cannot be controlled by diet and exercise in conjunction with an oral hypoglycemic agent.
- Glimepiride is also used with diet and exercise to treat type II (noninsulin-dependent) diabetes (formerly 'adult-onset').

DOSAGE:

A single dose of 1mg. The maximum recommended daily dose is 8mg. The dose should be administered with breakfast or the first main meal.

PHARMACOKINETICS:

- Has long duration of effect, 24hrs.
- Has half life of 5hrs following single dose.
- Metabolized by the liver to inactive products.
- Can be 100% absorbed.
- Protein binding is greater than 99%.

ADVERSE EFFECTS:

- dizziness or lightheadedness
- headache
- Gastrointestinal disturbances.
- rarely leucopenia, Agranulocytosis, Thrombocytopenia, Hemolytic anemia, Aplastic anemia and Pancytopenia. Low blood sugar. This can cause anger, shaking, rapid heartbeats, confusion, sweating.
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SPECIAL PRECAUTION:

Care is to be taken while using drug in hepatic/renal/cardiac impairment. There is risk of hypoglycemia in the initial treatment. So, it requires careful monitoring of glucose levels in blood and urine regularly.

CONTRAINDICATION:

- Hypersensitivity, Insulin dependent diabetes mellitus (TYPE I) or Diabetic precoma or coma and in dental surgery.
- The drug is contraindicated in pregnancy and lactation.
- Avoid alcohol intake (includes wine, beer, and liquor).

DRUG INTERACTION:

1. Drugs that potentiate the hypoglycemic action:

NSAIDs Drugs and other drugs such as Salicylates, Sulfonamides, Chlorphenicol, Coumarins, Probenicid, Monoamine oxidase inhibitors, and Beta Adrenergic blocking agents.

2. Drugs that decrease the hypoglycemic Action:

The thiazides and other diuretics, corticosteroids, phenothiazines, thyroid products, estrogens, oral contraceptives, phenytoin, nicotinic acid, sympathomimetics, and isoniazid.

3. Other drugs that Glimepiride interact are:

Warfarin, ACE inhibitors, Azole(antifungals), Calcium channel blockers, estrogens, fibrates, HMG-CoA reductase inhibitors, sulfonamides, or thyroid hormones.

ADVANTAGES OF GLIMEPIRIDE OVER OTHER SECOND GENERATION SULFONYLUREA

- Has rapid onset and prolonged duration of action, permitting once daily administration
- Reduce blood glucose more rapidly than glipizide
- Has also an insulin-mimetic effect in peripheral tissues, possibly mediated by GLUT-4 recruitment
- Has extrapancreatic effects which causes lesser degree of stimulated hyperinsulinemia
- Glimepiride is thought to have lesser effects at cardiovascular KATP channels in human than glibenclamide.
- In vitro studies demonstrate that glimepiride binds to a different cell receptor protein and appears to have a 2-3 fold faster association and an 8-9 fold faster dissociation rate than glibenclamide.
- Has lesser post-exercise insulin release effect, thereby decreasing the risk of hypoglycemia than glibenclamide.
- Have fewer drug interactions than others.

For further information, please contact:

Market Planning Department



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