

PRODUCT MONOGRAPH  
INCLUDING PATIENT MEDICATION INFORMATION

 **PROGLYCEM<sup>®</sup>**

Diazoxide

Capsules, 100 mg, Oral

Merck Standard

Hyperglycemic Agent

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## RECENT MAJOR LABEL CHANGES

7 WARNING AND PRECAUTIONS	08/2023
8 ADVERSE REACTIONS, 8.5 Post-market Adverse Reactions	08/2023

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## **PART I: HEALTH PROFESSIONAL INFORMATION**

### **1 INDICATIONS**

PROGLYCEM (diazoxide) is indicated for the management of hypoglycemia due to hyperinsulinism associated with the following conditions:

- Adults: Inoperable islet cell adenoma or carcinoma or extrapancreatic malignancy.
- Infants and Children: Leucine sensitivity, islet cell hyperplasia, nesidioblastosis, extrapancreatic malignancy, islet cell adenoma, or adenomatosis. PROGLYCEM may be used pre-operatively as a temporary measure and post-operatively if hypoglycemia persists.

PROGLYCEM should be used only after a diagnosis of hypoglycemia due to one of the above conditions has been definitely established. When other specific medical therapy or surgical management either has been unsuccessful or is not feasible, treatment with PROGLYCEM should be considered.

#### **1.1 Pediatrics**

Pediatrics (birth – up to 18 years): Based on the data submitted and reviewed by Health Canada, the safety and efficacy of PROGLYCEM in pediatric patients has been established. Therefore, Health Canada has authorized an indication for pediatric use (see [Cardiovascular](#)).

#### **1.2 Geriatrics**

Geriatrics: No Specific data are available for geriatric use.

### **2 CONTRAINDICATIONS**

- The use of PROGLYCEM for functional hypoglycemia is contraindicated.
- The drug should not be used in patients hypersensitive to diazoxide or to other thiazides or to any ingredient in the formulation, including any non-medicinal ingredients, or component of the container. For a complete listing, see [6 DOSAGE FORMS, STRENGTH, COMPOSITION AND PACKAGING](#).

### **4 DOSAGE AND ADMINISTRATION**

#### **4.1 Dosing Considerations**

The dosage of PROGLYCEM must be individualized based on the severity of the hypoglycemic condition and the blood glucose level and the clinical response of the patient. The dosage should be adjusted until the desired clinical and laboratory effects are produced with the least amount of the drug. Special care should be taken to assure accuracy of dosage in infants and young children.

#### **4.2 Recommended Dose and Dosage Adjustment**

##### *Adults and Children*

The usual daily dosage is three to eight (3–8) mg/kg, divided into two or three equal doses every eight or 12 hours. In certain instances, patients with refractory hypoglycemia may require higher dosages. Ordinarily, an appropriate starting dosage is 3 mg/kg/day, divided into three equal doses every eight hours. Thus, an average adult would receive a starting dosage of approximately 200 mg daily.

### Infants and Newborns

The usual daily dosage is 8 to 15 mg/kg, divided into 2 or 3 equal doses every 8 or 12 hours. An appropriate starting dosage is 10 mg/kg/day, divided into 3 equal doses every 8 hours.

#### 4.4 Administration

Proglycem should be taken orally. Patients should be under close clinical observation when treatment with PROGLYCEM is initiated. The clinical response and blood glucose level should be carefully monitored until the patient's condition has stabilized satisfactorily; in most instances, this may be accomplished in several days. If administration of PROGLYCEM is not effective after two or three weeks, the drug should be discontinued.

#### 4.5 Missed Dose

If a dose of Proglycem is missed, it should be taken as soon as possible. However, if it is almost time for the next dose, the missed dose should be skipped, and the regular dosing schedule followed. Doses should not be doubled.

### 5 OVERDOSAGE

An overdosage of PROGLYCEM causes marked hyperglycemia which may be associated with ketoacidosis. It will respond to prompt insulin administration and restoration of fluid and electrolyte balance. Because of the drug's long half-life (approximately 30 hours), the symptoms of overdosage require prolonged surveillance for periods up to seven days, until the blood sugar level stabilizes within the normal range. One investigator reported successful lowering of diazoxide blood levels by peritoneal dialysis in one patient and by hemodialysis in another.

For management of a suspected drug overdose, contact your regional poison control centre.

### 6 DOSAGE FORMS, STRENGTHS, COMPOSITION AND PACKAGING

Table 1 – Dosage Forms, Strengths, Composition and Packaging

Route of Administration	Dosage Form / Strength/Composition	Non-medicinal Ingredients
Oral	Capsule 100 mg	Lactose monohydrate, magnesium stearate

Opaque white capsules, packaged as blister of 100 capsules (5 strips of 20 capsules).

Composition of the capsule shell: gelatin, titanium dioxide (E171).

### 7 WARNINGS AND PRECAUTIONS

#### General

Treatment with PROGLYCEM should be initiated under close clinical supervision, with careful monitoring of blood glucose and clinical response until the patient's condition has stabilized. This usually requires several days. If not effective in two or three weeks, the drug should be discontinued.

## **Cardiovascular**

Pericardial effusions have been observed infrequently in patients without structural heart disease receiving oral diazoxide in the post-market setting. Cases have been mostly observed in pediatric patients, including infants.

In some cases, resolution of pericardial effusion was observed upon diazoxide discontinuation. Some cases required pericardiocentesis.

Pericardial effusions are serious conditions that have the potential to progress to cardiac tamponade. Patients should be observed for signs and symptoms of pericardial effusion.

## **Endocrine and Metabolism**

Ketoacidosis and non-ketotic hyperosmolar coma have been reported in patients treated with recommended doses of PROGLYCEM usually during intercurrent illness. Prompt recognition and treatment are essential (See [5 OVERDOSAGE](#)) and prolonged surveillance following the acute episode is necessary because of the long drug half-life of approximately 30 hours. The occurrence of these serious events may be reduced by careful education of patients regarding the need for monitoring the urine for sugar and ketones and for prompt reporting of abnormal findings and unusual symptoms to the health professional.

In the presence of hypokalemia, the hyperglycemic effects of diazoxide are potentiated.

## **Hepatic/Biliary/Pancreatic**

PROGLYCEM may possibly displace bilirubin from albumin; this should be kept in mind particularly when treating newborns with increased bilirubinemia.

## **Monitoring and Laboratory Tests**

Prolonged treatment requires regular monitoring of the urine for sugar and ketones, especially under stress conditions, with prompt reporting of any abnormalities to the health professional.

Additionally, blood sugar levels should be monitored periodically by the health professional to determine the need for dose adjustment.

Tachycardia, palpitations, increased levels of serum uric acid, particularly in patients with hyperuricemia or a history of gout, thrombocytopenia with or without purpura, and neutropenia have been observed. Patients at risk should be monitored for these conditions and blood tests for hematological abnormalities should be conducted periodically (See [8.1 Adverse Reaction Overview](#)).

## **Ophthalmologic**

Transient cataracts occurred in association with hyperosmolar coma in an infant and subsided on correction of the hyperosmolarity. Cataracts have been observed in several animals receiving daily doses of intravenous or oral diazoxide.

## **Renal**

Since the plasma half-life of diazoxide is prolonged in patients with impaired renal function, a reduced dosage should be considered. Serum electrolyte levels should also be evaluated for such patients.

The antidiuretic property of diazoxide may lead to significant fluid retention, which in patients with compromised cardiac reserve may precipitate congestive heart failure. The fluid retention will respond to conventional therapy with diuretics.

It should be noted that concomitantly administered thiazides may potentiate the hyperglycemic and hyperuricemic actions of diazoxide (See [9.4 Drug-Drug Interactions](#) and [16 NON-CLINICAL TOXICOLOGY](#)).

## **7.1 Special Populations**

### **7.1.1 Pregnant Women**

PROGLYCEM should not be used in women of child-bearing age except in life-threatening situations. Reproduction studies using the oral preparation in rats have revealed increased fetal resorptions and delayed parturition, as well as fetal skeletal anomalies. Evidence of skeletal and cardiac teratogenic effects in rabbits has been noted with the intravenous administration. The drug has also been demonstrated to cross the placental barrier in animals and cause degeneration of the fetal pancreatic beta cells (See [16 NON-CLINICAL TOXICOLOGY](#)). Since there are no adequate data on fetal effects of this drug when given to pregnant women, safety in pregnancy has not been established.

When the use of PROGLYCEM in pregnant women is considered, the indications should be limited to those specified above for adults (See [1 INDICATIONS](#)) and the potential benefits to the mother must be weighed against possible harmful effects to the fetus.

### **7.1.2 Breast-feeding**

Diazoxide may pass into the breast milk of nursing mothers.

### **7.1.3 Pediatrics**

Pediatrics (birth – up to 18 years): Based on the data submitted and reviewed by Health Canada, the safety and efficacy of PROGLYCEM in pediatric patients has been established. Therefore, Health Canada has authorized an indication for pediatric use (see [Cardiovascular](#)).

### **7.1.4 Geriatrics**

No specific data are available for geriatric use.

## **8 ADVERSE REACTIONS**

### **8.1 Adverse Reaction Overview**

Sodium and fluid retention is most common in young infants and in adults. It may precipitate congestive heart failure in patients with compromised cardiac reserve and it usually responds to diuretic therapy (See [9.4 Drug-Drug Interactions](#)).

Diabetic ketoacidosis and hyperosmolar non-ketotic coma is an infrequent but serious adverse reaction that may develop very rapidly. Conventional therapy with insulin and restoration of fluid and electrolyte balance are usually effective if instituted promptly. Prolonged surveillance is essential in view of the long half-life of PROGLYCEM (See [5 OVERDOSAGE](#)). Pulmonary hypertension in neonates,

infants, and children has also been noted; in most reported cases, pulmonary hypertension improved upon discontinuation of diazoxide.

Other frequent adverse reactions include hirsutism of the lanugo-type, mainly on the forehead, back and limbs, occurs most commonly in children and women. It subsides on discontinuation of the drug.

Hyperglycemia or glycosuria may require reduction in dosage in order to avoid progression to ketoacidosis or hyperosmolar coma.

Gastrointestinal intolerance may include anorexia, nausea, vomiting, abdominal pain, ileus, diarrhea, transient loss of taste. Tachycardia, palpitations, increased levels of serum uric acid are common.

Thrombocytopenia with or without purpura may require discontinuation of the drug (See [Monitoring and Laboratory Tests](#)). Neutropenia is transient, is not associated with increased susceptibility to infection and ordinarily does not require discontinuation of the drug. Skin rash, headache, weakness, and malaise may also occur.

Less common adverse reactions per system organ class (SOC) include:

Cardiac disorders: Hypotension, transient hypertension, chest pain.

Eye disorders: Transient cataracts, subconjunctival hemorrhage, ring scotoma, blurred vision, diplopia, lacrimation.

Gastrointestinal disorders: Acute pancreatitis/pancreatic necrosis.

General disorders and administration site conditions: Fever, lymphadenopathy.

Hepatobiliary disorders: Increased aspartate aminotransferase (AST), increased alkaline phosphatase.

Infections and infestations: Monilial dermatitis, herpes.

Investigations: Eosinophilia; decreased hemoglobin/hematocrit; excessive bleeding; decreased IgG.

Metabolism and nutrition disorders: Gout.

Musculoskeletal and connective tissue disorders: Advance in bone age.

Nervous system disorders: Anxiety, dizziness, insomnia, polyneuritis, paresthesia, pruritus, extrapyramidal signs.

Renal and urinary disorders: Azotemia, decreased creatinine clearance, reversible nephrotic syndrome, decreased urinary output, hematuria, albuminuria.

Reproductive system and breast disorders: galactorrhea, enlargement of lump in breast.

Skin and subcutaneous tissue disorders: Loss of scalp hair.

## **8.5 Post-Market Adverse Reactions**

Cardiac disorders: Pericardial effusion (See [Cardiovascular](#)).

Gastrointestinal disorders: Necrotizing enterocolitis, including fatal cases.



## 9 DRUG INTERACTIONS

### 9.4 Drug-Drug Interactions

The drugs listed in this table are based on either drug interaction case reports or studies, or potential interactions due to the expected magnitude and seriousness of the interaction (i.e., those identified as contraindicated).

**Table 2 - Established or Potential Drug-Drug Interactions**

[Proper/Common name]	Source of Evidence	Effect	Clinical comment
Antihypertensive agents	Not available	Increased antihypertensive effect	Concomitant administration with antihypersensitive agents should be monitored.
Chlorpromazine	Not available	Enhanced hyperglycemic action of diazoxide	Glucose levels should be monitored.
Diphenylhydantoin	Not available	Loss of seizure control	Concomitant administration of diphenylhydantoin should be monitored.
Diuretics	Not available	Potentiated hyperglycemic and hyperuricemic actions of diazoxide	Concomitant administration of thiazides or other commonly used diuretics should be monitored.
Coumarin or its derivatives	Not available	Protein Binding, potentiation of hypoprothrombic action	Dosage of anti-coagulant may require reduction, although there has been no reported evidence of excessive anticoagulant effect.

### 9.5 Drug-Food Interactions

Interactions with food have not been established.

### 9.6 Drug-Herb Interactions

Interactions with herbal products have not been established.

### 9.7 Drug-Laboratory Test Interactions

Interactions with laboratory tests have not been established.

## 10 CLINICAL PHARMACOLOGY

### 10.1 Mechanism of Action

Diazoxide administered intravenously, intraperitoneally and orally produces hyperglycemia in animals.

Biochemical studies have shown that diazoxide suppresses insulin secretion and inhibits the conversion of cyclic 3', 5' AMP to 5' AMP. The hyperglycemia from diazoxide is also increased in potassium deficiency. Tolbutamide can reverse the insulin blockade of diazoxide. In the dog, diazoxide has been reported to increase the release and turnover of free fatty acids (FFA) and to increase coronary blood flow. Dogs receiving 160 mg/kg diazoxide intraperitoneally showed, in addition to hyperglycemia, statistically significant increases of the serum lactate and pyruvate levels. Alpha and beta adrenergic receptors have been variously involved with the metabolic effects of diazoxide.

It has been shown that diazoxide antagonizes noradrenaline, angiotensin and serotonin induced contractions in aortic strips. Experiments suggest diazoxide exerts its vasodilator action by direct competition for calcium receptor sites. It inhibits spontaneous uterine motility and abolishes ureteral peristalsis. Electrophysiological studies show diazoxide inhibits spontaneous electrical activity in isolated rabbit anterior mesenteric veins, in guinea pig tenia coli and in the stilbestrol treated rabbit uterus.

Retention of water and electrolytes, particularly sodium has been observed following administration of diazoxide to dogs and other animals. The drug also limits the excretion of excessive quantities of water by water-loaded animals, exerting an antidiuretic action by several mechanisms, primarily direct action on the renal tubules.

## **10.2 Pharmacodynamics**

Orally administered diazoxide produces a prompt dose-related increase in blood glucose level, due primarily to an inhibition of pancreatic release of insulin, and also to an extrapancreatic effect.

Diazoxide decreases sodium and water excretion, resulting in fluid retention, which may be clinically significant.

The effects on blood pressure are usually not marked with the oral preparation.

Other pharmacologic actions of diazoxide include increased pulse rate; increased serum uric acid levels due to decreased excretion; increased serum free fatty acid levels; decreased chloride excretion; decreased para-aminohippuric acid (PAH) clearance with no appreciable effect on glomerular filtration rate.

## **10.3 Pharmacokinetics**

The information on which the original indication was authorized is not available.

## **11 STORAGE, STABILITY AND DISPOSAL**

Store at room temperature (15°C to 30°C).

Disposal of any unused PROGLYCEM capsules should be in accordance with recommendations governing the disposal of pharmaceutical waste. Patients should be instructed to not dispose medication in wastewater or household waste.

## PART II: SCIENTIFIC INFORMATION

### 13 PHARMACEUTICAL INFORMATION

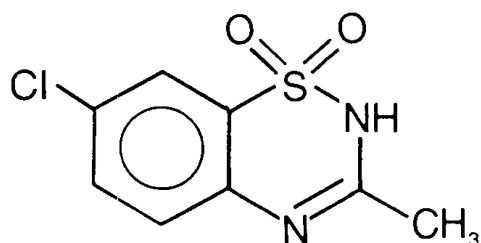
#### Drug Substance

Proper name: diazoxide

Chemical name: 7-chloro-3-methyl-2H-1,2,4-benzothiadiazine 1,1-dioxide

Molecular formula and molecular mass: C<sub>8</sub>H<sub>7</sub>ClN<sub>2</sub>O<sub>2</sub>S and 230.67

Structural formula:



Physicochemical properties: Melting Point is 327–329 °C

#### Product Characteristics:

PROGLYCEM (diazoxide) is a benzothiadiazine derivative.

### 14 CLINICAL TRIALS

The clinical trial data on which the original indication was authorized is not available.

### 15 MICROBIOLOGY

No microbiological information is required for this drug product.

### 16 NON-CLINICAL TOXICOLOGY

**General Toxicology:** In acute toxicity studies, the LD<sub>50</sub> for oral diazoxide suspension is > 5000 mg/kg in the rat, > 522 mg/kg in the neonatal rat, between 1900 and 2572 in the mouse and 210 mg/kg in the guinea pig. Although the oral LD<sub>50</sub> was not determined in the dog, a dosage of up to 500 mg/kg was well tolerated.

In subacute oral toxicity studies, diazoxide at 400 mg/kg in the rat produced growth retardation, edema, increases in liver and kidney weights and adrenal hypertrophy. Daily dosages up to 1080 mg/kg for 3 months produced hyperglycemia, an increase in liver weight and an increase in mortality.

In dogs given oral diazoxide at approximately 40 mg/kg/day for one month, no biologically significant gross or microscopic abnormalities were observed. Cataracts, attributed to markedly disturbed carbohydrate metabolism, have been observed in a few dogs given repeated daily doses of oral or

intravenous diazoxide. The lenticular changes resembled those which occur experimentally in animals with increased blood sugar levels.

In chronic toxicity studies, rats given a daily dose of 200 mg/kg diazoxide for 52 weeks had a decrease in weight gain and an increase in heart, liver, adrenal and thyroid weights. Mortality in drug-treated and control groups was not different.

Dogs treated with diazoxide at dosages of 50, 100, 200 mg/kg/day for 82 weeks had higher blood glucose levels than controls. Mild bone marrow stimulation and increased pancreas weights were evident in the drug treated dogs; several developed inguinal hernias, one had a testicular seminoma and another had a mass near the penis. Two females had inguinal mammary swellings. The etiology of these changes was not established. There was no difference in mortality between drug-treated and control groups.

In a second chronic oral toxicity study, dogs given milled diazoxide at 50, 100 and 200 mg/kg/day had anorexia and severe weight loss, causing death in a few. Hematologic, biochemical and histologic examinations did not indicate any cause of death other than inanition. After one year of treatment, there is no evidence of herniation or tissue swelling in any of the dogs.

When diazoxide was administered at high dosages concomitantly with either chlorothiazide to rats or trichlormethiazide to dogs, increased toxicity was observed. In rats, the combination was nephrotoxic; epithelial hyperplasia was observed in the collecting tubules. In dogs, a diabetic syndrome was produced which resulted in ketosis and death. Neither of the drugs given alone produced these effects.

**Reproductive and Developmental Toxicology:** Pregnant rats were treated with oral diazoxide at dose levels of 50, 100, 200 and 300 mg/kg. Each dose level group was subdivided in two subgroups, one receiving the drug on a specified day basis, from day 6 to day 10 of pregnancy, the other group being treated daily from day 6 to day 16. There were no significant clinical or autopsy findings. Pre-natal mortality was not different from control group mortality. The body weights of the offspring were unaltered as was the litter size. In a litter of 14 from a dam having received 300 mg/kg at day 7, one offspring was found to have the ulna of the left foreleg missing and only two toes. The ossification centers of the sternum were split and disorganized and it had an extra rib.

In another reproduction study, rats receiving diazoxide orally at 30 mg/kg and 100 mg/kg daily dose levels for 14 days prior to mating and continuing through pregnancy and lactation. No differences between groups (including a control group) could be found in behaviour, appetite or appearance. The litter sizes were not significantly different and although parturition was delayed to the 23rd day in 44% (7/16) of the 100 mg/kg group and 31% (5/16) of the 30 mg/kg group vs. 20% (3/15) of the control group, these differences did not reach a statistically significant level. Conception rate was not significantly different between the 3 groups. At birth, the offspring weights were not different statistically, but at day 4, the 30 mg/kg group weighed significantly more than controls. On day 21, the 100 mg/kg group was found to weigh significantly less than controls while the 30 mg/kg group was no longer different from the control group.

To determine the effect of diazoxide during late pregnancy, the drug was given intravenously to rats daily from day 18 to day 22 (inclusive) to gestation. Dose levels were 10 mg/kg, 30 mg/kg and 100 mg/kg. A saline control group was used. Each group contained 20 animals. No difference was observed between the control and 10 mg/kg group of dams. At 30 mg/kg, one rat died but all survivors had normal behaviour and appearance. All animals in the 100 mg/kg group died after the second or third injection. There was no significant difference in the number of offspring between controls and the 10 mg/kg and 30 mg/kg groups. The four day neonatal survival rates were lower in the 10 mg/kg and 30

mg/kg groups relative to controls but the difference was attributed to agalactia occurring in two dams of the 30 mg/kg group and one of the 10 mg/kg group. Gross external and visceral examination of the offspring revealed no abnormalities.

A study was made to determine the effect in the rabbit of intravenous diazoxide at dose levels of 7 to 21 mg/kg administered once daily from day 6 to day 18 of gestation. Analysis of variance showed no significant difference in litter size between the 3 treatments (7, 21 mg/kg and control, 13 individuals per group). High dose offspring weighed significantly less than controls. Among the 88 offspring of the 21 mg/kg group, one major abnormality occurred in one of the litters. It consisted of a dead fetus with ectocardia; it also had severe cardiac malformation, no radius in both front legs and only three metacarpals. Its five littermates were normal. Among the other offspring in the 21 mg/kg group, three were found to have an abnormal distribution of sternal ossification nuclei. There is scientific evidence from experiments carried out in sheep and goats that diazoxide crosses the placenta. Diazoxide blood levels in the fetuses were approximately half those found in maternal blood while fetal blood glucose levels rose significantly within 30 minutes of administration. Histologic examination of the pancreas of the newborn showed vacuolization degeneration of the islet cells of Langerhans.

According to Finnerty, there was no unusual incidence of prematurity, perinatal mortality or abnormality in the children born to 75 eclamptic or pre-eclamptic women treated with diazoxide intravenous for hypertension. In 13 (17.3%) of these cases, the administration of diazoxide was followed by a cessation of labour which responded to oxytocics. Published reports also confirm that the use of diazoxide in the treatment of eclampsia is not incompatible with the delivery of normal infants.

In a Milner study, four infants were born to women treated with oral diazoxide for the last 19 to 69 days of pregnancy. Maternal plasma levels of diazoxide in the five days before delivery were related to the intake of the drug and varied between 11 and 43  $\mu\text{g}/\text{mL}$ . At delivery, the umbilical plasma diazoxide level was lower than that in the mother and was 6.5 to 24  $\mu\text{g}/\text{mL}$ . At the age of 24 hours, the plasma diazoxide level in the infants had not altered appreciably. Diazoxide was present in the amniotic fluid and was excreted in the urine in the first week of life. Urinary diazoxide excretion was greatest on days two and three and had fallen to low or undetectable levels by 6 and 7. No effect of diazoxide was noted on the blood pressure or blood sugar levels of the infants in the first 24 hours. The glucose tolerance of two of the infants was normal at 24 hours but that of the other two whose mothers had diabetes, was impaired. Each of the infants developed alopecia and one had hypertrichosis lanuginosa. Abnormal hair growth was first noted at the age of one week and persisted when the infants were last seen at the age of five months to one year. The bone age of three was normal at a chronological age of five to seven months but the fourth, when aged one year, had retarded ossification in the wrist. No abnormalities were detected in blood counts, immunoglobulin levels, or ocular development.

## PATIENT MEDICATION INFORMATION

### READ THIS FOR SAFE AND EFFECTIVE USE OF YOUR MEDICINE

## **PROGLYCEM®**

### **diazoxide capsules**

Read this carefully before you start taking **PROGLYCEM®** and each time you get a refill. This leaflet is a summary and will not tell you everything about this drug. Talk to your healthcare professional about your medical condition and treatment and ask if there is any new information about **PROGLYCEM®**.

### **What is PROGLYCEM® used for?**

**PROGLYCEM®** (diazoxide) is used to manage low blood sugar levels (hypoglycemia) in children and adults with certain conditions that can cause high levels of insulin (hyperinsulinism). These conditions include:

- Adults: cancerous or non-cancerous pancreas tumors that cannot be treated by surgery.
- Infants and Children:
  - Leucine sensitivity. This is an inherited condition.
  - Enlargement of islet cells (islet cell hyperplasia)
  - Too many cells in the pancreas that make insulin or too much growth of those cells (nesidioblastosis)
  - Cancerous or non-cancerous pancreas tumors, that cannot be treated by surgery.

**PROGLYCEM®** may be used before surgery as a temporary measure and after surgery if low blood sugar levels persists.

### **How does PROGLYCEM® work?**

**PROGLYCEM®** (diazoxide) is a benzothiadiazine derivative. It works by blocking the release of insulin from your pancreas.

### **What are the ingredients in PROGLYCEM®:**

Medicinal ingredients: Diazoxide

Non-medicinal ingredients: Lactose monohydrate, magnesium stearate

Capsule shell: gelatin, titanium dioxide (E171).

### **PROGLYCEM® comes in the following dosage forms:**

Oral capsules: 100 mg

### **Do not use PROGLYCEM® if:**

- you have reactive low blood sugar levels (functional hypoglycemia). This is a condition where blood sugar drops after a meal.
- you are allergic to diazoxide or other thiazides (a type of diuretic, used to treat fluid build-up/high blood pressure).

**To help avoid side effects and ensure proper use, talk to your healthcare professional before you take PROGLYCEM®. Talk about any health conditions or problems you may have, including if you:**

- have increased levels of serum bilirubin, particularly in newborns,
- have low blood sugar levels,
- have increased heart rate and palpitations,
- have increased levels of uric acid in the blood or history of gout,
- have any kidney problems,
- have heart problems,
- are pregnant or a woman of child-bearing age.
- are breast-feeding. PROGLYCEM® may pass into your breast milk.

**Other warnings you should know about:**

- **Pericardial effusion** is possible with PROGLYCEM® treatment. This is when fluid builds up in the space around the heart. It is a serious condition that may lead to other heart problems. Should this happen to you, you may need a procedure to remove the fluid called pericardiocentesis. Your healthcare professional will monitor you for signs of pericardial effusion.
- **Salt and fluid retention** is possible with PROGLYCEM® treatment. This is when there is abnormal build-up of salt and fluid in the body. It is a serious condition that may lead heart failure, especially if you have other heart problems. If you experience fluid and salt retention during treatment, your healthcare professional may reduce your dose of PROGLYCEM® and prescribe you diuretic medication.
- **Check-ups and testing:**  
You will have regular visits with your healthcare professional during your treatment with PROGLYCEM®. They may:
  - Do blood or urine tests to monitor levels of blood cells, sugar, electrolyte and ketone bodies (acidic substances).
  - Check for signs and symptoms of certain side effects.

**Tell your healthcare professional about all the medicines you take, including any drugs, vitamins, minerals, natural supplements or alternative medicines.**

**The following may interact with PROGLYCEM®:**

- Medicines used treat high blood pressure (antihypertensive agents)
- Chlorpromazine, a medicine used to treat certain mental or mood disorders
- Medicines used to prevent formation of blood clots (coumarin-based drugs)
- Diphenylhydantoin, a medicine used to treat seizures
- Medicines used to treat abnormal fluid build-up/high blood pressure (Diuretics)

**How to take PROGLYCEM®:**

- Always use this medicine exactly as your healthcare professional has told you. Check with your healthcare professional if you are not sure.

- Take PROGLYCEM® capsules by mouth.

**Usual dose:**

Your healthcare professional will decide the right dose for you depending on the severity of your condition.

- Adults and children: 3-8 mg/kg. This should be divided into 2 equal doses every 12 hours or 3 equal doses every 8 hours.
- Infants and newborns: 8-15 mg/kg. This should be divided into 2 equal doses every 12 hours or 3 equal doses every 8 hours.

**Overdose:**

Taking too much PROGLYCEM may cause you to have high blood sugar levels (hyperglycemia). When this happens, your healthcare professional may need give you treatment to bring your blood sugar levels back to normal. They may also need to continue monitoring your blood sugar levels for up to 7 days after treatment.

If you think you, or a person you are caring for, have taken too much PROGLYCEM® contact a healthcare professional, hospital emergency department, or regional poison control centre immediately, even if there are no symptoms.

**Missed Dose:**

- If you miss a dose of PROGLYCEM®, take it as soon as possible. If it is almost time for your next scheduled dose, skip the missed dose.
- Take your next dose at the usual time. Do NOT take double the dose to make up for a dose you have missed.

**What are possible side effects from using PROGLYCEM®?**

These are not all the possible side effects you may have when taking PROGLYCEM®. If you experience any side effects not listed here, tell your healthcare professional.

- Excessive hair growth in women either on face, chest or back
- Digestive system problems, including: nausea, vomiting, stomach pain, decreased intestinal movement, diarrhea, temporary loss of taste
- High levels of uric acid in the blood which may cause joint pain, redness or swelling
- Skin rash or itching
- Headache
- Lightheaded, tiredness, or generally feeling ill
- Anxiety
- Trouble falling asleep or staying asleep
- Nerve inflammation, which may cause weakness, numbness, and pain
- Eye problems such as:
  - temporary cloudiness in the eye,
  - presence of blood in the eyes
  - blind spot in your field of vision,



- blurry or double vision; or
- excess tear production
- Fungal or viral infection of the skin that causes inflammation, sores, or blisters
- Accelerated bone age in children that causes reduced final height
- Loss of scalp hair
- Fever
- Swelling of the lymph nodes
- Leaking of milk from the breasts unrelated to breastfeeding or enlargement of lump in breast

<b>Serious side effects and what to do about them</b>			
<b>Symptom / effect</b>	<b>Talk to your healthcare professional</b>		<b>Stop taking drug and get immediate medical help</b>
	<b>Only if severe</b>	<b>In all cases</b>	
<b>COMMON</b>			
<b>Sodium and fluid retention</b> (abnormal build-up of salt and fluid in the body)		X	
<b>Hyperglycemia or Glycosuria</b> (high blood or urine sugar levels): increased thirst, frequent urination, dry skin, headache, blurred vision and fatigue		X	
<b>Tachycardia</b> (fast heartbeat or palpitations): dizziness, light headedness, shortness of breath, racing heart			X
<b>Thrombocytopenia</b> (reduced blood platelets): increased chances of bleeding or bruising, fatigue and weakness			X
<b>RARE</b>			
<b>Diabetic ketoacidosis</b> (a complication of diabetes that results from increased levels of acid in the blood): excessive thirst, frequent urination, loss of appetite, nausea or vomiting and rapid weight loss)			X
<b>Hyperosmolar non-ketotic coma</b> (coma resulting from very high blood glucose levels leading to dehydration and state of altered consciousness)			X
<b>Pulmonary hypertension</b> (high blood pressure in blood vessels in the lungs): Shortness of breath with everyday activities or at rest,			X

Serious side effects and what to do about them			
Symptom / effect	Talk to your healthcare professional		Stop taking drug and get immediate medical help
	Only if severe	In all cases	
irregular heartbeat, fast pulse, tiredness, dizziness, and fainting spells			
<b>Hypertension/Hypotension</b> (changes in the levels of your blood pressure high or low): shortness of breath, fatigue, dizziness or fainting, chest pain or pressure, swelling in your ankles and legs, bluish colour to your lips and skin, racing pulse or heart palpitations			X
Chest Pain			X
<b>UNKNOWN FREQUENCY</b>			
Changes in liver test results, including elevation in liver enzymes or bilirubin levels		X	
Changes in tests of kidney function, excessive protein loss in the urine, reduced urine volume, blood in the urine		X	
<b>Reversible nephrotic syndrome:</b> excess protein in urine, foamy urine, loss of appetite, weight gain from fluid retention, swelling		X	
<b>Neutropenia/ Eosinophilia</b> (changes to white blood cells – decreased neutrophils, increased eosinophils): infections, fatigue, fever, aches, pains and flu-like symptoms		X	
<b>Anemia</b> (decreased red blood cells/ anemia): fatigue, loss of energy, looking pale, shortness of breath, weakness		X	
<b>Extrapyramidal signs</b> (involuntary and uncontrollable movements like shaking of the hands, difficulty moving or rolling of the eyes)		X	
<b>Acute pancreatitis/pancreatic necrosis</b> (inflammation of the pancreas that can lead to permanent pancreatic cell			X

Serious side effects and what to do about them			
Symptom / effect	Talk to your healthcare professional		Stop taking drug and get immediate medical help
	Only if severe	In all cases	
damage): upper abdominal pain, fever, rapid heart beat, nausea, vomiting, tenderness when touching the abdomen			
<b>Pericardial effusion</b> (build-up of fluid in the space around the heart): shortness of breath, trouble breathing when lying down, chest pressure or pain, lightheadedness, swelling of the abdomen or legs			X
<b>Necrotizing enterocolitis</b> (inflammation of the tissue of the intestine causing it to die): trouble digesting food, bloated or swollen abdomen, swelling, diarrhea, constipation			X

If you have a troublesome symptom or side effect that is not listed here or becomes bad enough to interfere with your daily activities, tell your healthcare professional.

#### Reporting Side Effects

You can report any suspected side effects associated with the use of health products to Health Canada by:

- Visiting the Web page on Adverse Reaction Reporting (<https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada.html>) for information on how to report online, by mail or by fax; or
- Calling toll-free at 1-866-234-2345.

*NOTE: Contact your health professional if you need information about how to manage your side effects. The Canada Vigilance Program does not provide medical advice.*

#### Storage:

Store at room temperature (15°C to 30°C). Keep out of reach and sight of children.

#### If you want more information about PROGLYCEM®:

- Talk to your healthcare professional
- Find the full product monograph that is prepared for healthcare professionals and includes this Patient Medication Information by visiting the Health Canada website:

<https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/drug-product-database.html>; the manufacturer's website [www.merck.ca](http://www.merck.ca), or by calling 1-800-567-2594.

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