**DYNACAZ MR**

**SCHEDULING STATUS** S3

**1. NAME OF THE MEDICINE**
DYNACAZ 30 mg MR modified release tablets
DYNACAZ 60 mg MR modified release tablets
DYNACAZ 90 mg MR modified release tablets

**2. QUALITATIVE AND QUANTITATIVE COMPOSITION**
DYNACAZ 30 mg MR: Each modified release tablet contains 30 mg gliclazide.
Each 30 mg tablet contains sugar (73,50 mg lactose monohydrate per tablet).
DYNACAZ 60 mg MR: Each modified release tablet contains 60 mg gliclazide.
Each 60 mg tablet contains sugar (93,40 mg lactose monohydrate per tablet).
DYNACAZ 90 mg MR: Each modified release tablet contains 90 mg gliclazide.
Each 90 mg tablet contains sugar (140,10 mg lactose monohydrate per tablet).

For the full list of excipients, see section 6.1

**3. PHARMACEUTICAL FORM**
Modified release tablets.
DYNACAZ 30 mg MR: White to almost white, oval, slightly biconvex tablets of (length: 11 mm x width: 5,5 mm) with bevelled edges.
DYNACAZ 60 mg MR: White to almost white, oval, biconvex tablets of 13 mm.
DYNACAZ 90 mg MR: White to almost white, capsule shaped, biconvex tablets of 17 - 17,5 mm with two score lines around the tablet. Tablets may be subdivided in parts to improve patients' compliance with all the dosing regimens. Dissolution studies in different media at pH 0,1; 4,5 and 7,4, and uniformity of mass studies of divided parts were conducted.

**4. CLINICAL PARTICULARS**
**4.1 Therapeutic indications**
DYNACAZ MR is indicated in Type 2 diabetic patients, in association with dietary measures, lifestyle changes and exercise, when dietary measures, lifestyle and exercise alone are not sufficient to control blood glucose.

**4.2 Posology and method of administration**
**Posology:**
**For adult use only:**
DYNACAZ 30 mg MR: The daily dose may vary from 1 to 4 tablets a day, i.e.30 to 120 mg taken as a single daily dose.
DYNACAZ 60 mg MR: the daily dose may vary from one half to 2 tablets a day, i.e. 30 to 120 mg taken as a single daily dose. It is recommended that DYNACAZ MR be taken with breakfast.
If a dose is forgotten, the dose taken on the next day should not be increased. The dose should be adjusted according to the individual patient's metabolic response (blood glucose levels and/or glycosylated haemoglobin $HbA_{1c}$).

**Initial dose:**
The initial recommended dose is 30 mg once daily, taken with breakfast.

**Dose adjustments:**
If fasting blood glucose levels have not decreased satisfactorily, the dosage can be increased progressively to 60, 90 or 120 mg per day, by successive increments, respecting an interval of at least one month between each increment, except in patients whose blood glucose levels have not decreased after 15 days of treatment. In this case, the dosage may be increased at the end of the 2nd week of treatment.
The daily dose should not exceed 120 mg. Previously untreated patients should commence with a dose of 30 mg. One DYNACAZ 60 mg MR sustained release tablet is equivalent to two DYNACAZ 30 mg MR release tablets.

**Replacement of gliclazide 80 mg with DYNACAZ MR:**
In patients stabilised on gliclazide 80 mg, the replacement of gliclazide 80 mg by DYNACAZ MR may initially be based on: 1 tablet gliclazide 80 mg = 1 x 30 mg tablet of DYNACAZ MR.

**Replacement of another sulphonylurea with DYNACAZ MR:**
For replacement of another sulphonylurea treatment with DYNACAZ MR, it is recommended that the dosage and the half-life of the previous oral hypoglycaemic medicine must be taken into account.
If a patient is changed from another oral sulphonylurea with a prolonged half-life, a therapeutic window of a few days may prove to be necessary to avoid the additive effect of the two products and the subsequent risk of hypoglycaemia. During such a changeover, it is recommended that the initiation of treatment be the same as for the initial DYNACAZ MR dosage, starting with daily doses of 30 mg per day and then increase the dosage by increments, according to the patient's metabolic response.

**Association with other oral antidiabetic medicines:**
DYNACAZ MR may be given concurrently with alpha glucosidase inhibitors or insulin; however, diabetic control should be checked with blood sugar readings because of the possibility of hypoglycaemia. In combined therapy with biguanides, there may be an increased risk of cardiovascular mortality than with the use of DYNACAZ MR alone.

**Special populations**
**Elderly patients:**
The dosage is identical to that recommended for adults under the age of 65 years, and for patients with normal renal function, with careful patient monitoring.

**Patients with mild to moderate renal failure (creatinine clearance 30 - 80 mL/min):**
A reduction in dosage may be necessary in patients with renal dysfunction.
The dosage is identical to that recommended for patients with normal renal function, with careful monitoring. Use of DYNACAZ MR is contraindicated in patients with severe renal impairment (see section 4.3).

**Patients at risk of hypoglycaemia:**
It is recommended that the minimum starting dose of 30 mg is used in these patients (see section 4.4).

**Paediatric population**
The safety and efficacy of DYNACAZ MR in children and adolescents have not been established. No data is available.

**Method of administration**
It is recommended that the tablet(s) be swallowed whole.

**4.3 Contraindications**
- hypersensitivity to gliclazide, sulphonylureas, sulphonamides or to any of the ingredients of DYNACAZ MR
- type 1 diabetes mellitus (Juvenile Insulin Dependent Diabetes Mellitus), diabetic ketoacidosis, diabetic pre-coma and coma
- severe renal or hepatic insufficiency, in these cases the use of insulin is recommended
- treatment with miconazole (see section 4.5)
- children
- pregnancy and lactation (see section 4.6).

**4.4 Special warnings and precautions for use**
***Increased risk of cardiovascular mortality:***
The administration of oral hypoglycaemics may be associated with increased cardiovascular mortality, as compared to treatment with diet alone or diet with insulin.

A reduction in dosage may be necessary in patients with mild to moderate renal dysfunction (see sections 4.2 and 4.3).

Clinical signs of a still insufficiently lowered blood glucose (i.e. hyperglycaemia, polyuria, polydipsia, dry mouth) may require dose adjustment of DYNACAZ MR.

***Hypoglycaemia:***
Hypoglycaemia may occur following administration of sulphonylureas including DYNACAZ MR (see section 4.8). Some cases may be severe and prolonged. Hospitalisation may be necessary and glucose administration may need to be continued for several days.

Careful selection of patients, of the dose used, and clear patient directions are necessary to reduce the risk of hypoglycaemic episodes.
The administration of oral hypoglycaemics such as DYNACAZ MR may be associated with increased cardiovascular mortality as compared to treatment with diet alone or diet with insulin.

Treatment with DYNACAZ MR can cause hypoglycaemia if mealtimes are irregular and, in particular, if meals are skipped. Possible symptoms of hypoglycaemia are: headache, intense hunger, nausea, vomiting, lassitude, sleep disorders, agitation, aggression, poor concentration, reduced awareness and slowed reactions, depression, confusion, visual and speech disorders, aphasia, tremor, paresis, sensory disorders, dizziness, feeling of powerlessness, loss of self-control, delirium, convulsions, shallow respiration, bradycardia, drowsiness, and loss of consciousness, possibly resulting in coma and lethal outcome.
In addition, signs of adrenergic counter-regulation may be observed, sweating, clammy skin, anxiety, tachycardia, hypertension, palpitations, angina pectoris and cardiac dysrhythmia.
Usually, symptoms disappear after intake of carbohydrates (sugar), however, artificial sweeteners have no effect. Experience with other sulphonylureas shows that hypoglycaemia can recur even when measures prove effective initially.
If a hypoglycaemic episode is severe, or is prolonged, and even if it is temporarily controlled by intake of sugar, immediate medical treatment or even hospitalisation is required.

In the initial weeks of treatment, the risk of hypoglycaemia may be increased and careful monitoring is necessary. At risk patients and/or factors favouring hypoglycaemia include: (see section 4.2)
- patients refusing or (particularly elderly patients) being unable to co-operate
- patients who are malnourished or undernourished, with irregular mealtimes, skipping meals, periods of fasting or dietary changes
- imbalance between physical exercise and carbohydrate intake
- certain endocrine disorders: thyroid disorders, hypopituitarism and adrenocorticotrophic insufficiency, which should be controlled appropriately before therapy starts
- withdrawal of prolonged and/or high dose corticosteroid treatment
- severe vascular disease (severe coronary heart disease, severe carotid impairment, diffuse vascular disease)
- severe hepatic disease
- renal insufficiency
- concomitant administration of certain other medicines (see section 4.5)
- overdose of DYNACAZ MR.

It is recommended that the minimum starting dose of 30 mg be used.

DYNACAZ MR should be prescribed only if the patient is likely to have a regular food intake (including breakfast). It is important to have a regular carbohydrate intake due to the increased risk of hypoglycaemia, if a meal is taken late, if an inadequate amount of food is consumed or, if the food is low in carbohydrate. Hypoglycaemia is more likely to occur during low-calorie diets, following prolonged or strenuous exercise, alcohol intake or if a combination of hypoglycaemic medicines is being used.

In an exceptional stress situation e.g. trauma, fever, infection or surgical intervention, blood glucose regulation may deteriorate, and a temporary change to insulin may be necessary to maintain good metabolic control.

Gastrointestinal side effects can be avoided if DYNACAZ MR is taken with breakfast.
Hepatobiliary symptoms may disappear after discontinuation of treatment. Discontinue treatment if cholestatic jaundice appears.

Beta-blockers may decrease the efficacy of DYNACAZ MR by impairing the release of insulin. Beta-blockers may mask the typical sympathomimetic warning signs and symptoms of hypoglycaemia and may inhibit the normal physiological response to hypoglycaemia.

**Patient information:**
The risk of hypoglycaemia, together with its symptoms (see section 4.8), treatment and conditions that predispose to its development, should be explained to the patient and to family members. The patient should be informed of the importance of following dietary advice, of taking regular exercise and of regular monitoring of blood glucose levels.

**Poor blood glucose control:**
Blood glucose control may deteriorate under certain conditions, despite compliance from the patient. This occurs with exceptional stressors like fever, trauma, infection, surgery and febrile illnesses as well as St. John's Wort (*hypericum perforatum*) preparations (see section 4.5). Under these circumstances, it is prudent to convert the patient to insulin therapy temporarily to maintain good metabolic control.

The hypoglycaemic efficacy of DYNACAZ MR may be attenuated over time in many patients. This may be due to progression in the severity of the diabetes, or to a reduced response to treatment. This phenomenon is known as secondary failure which is distinct from primary failure, when an active substance is ineffective as first-line treatment. Adequate dose adjustment and dietary compliance should be considered before classifying the patient as secondary failure.

***Dysglycaemia:***
Disturbances in blood glucose, including hypoglycaemia and hyperglycaemia have been reported, in diabetic patient receiving concomitant treatment with fluoroquinolones, especially in elderly patients. Careful monitoring of blood glucose is recommended in all patients receiving DYNACAZ MR and a fluoroquinolone together.

***Renal and hepatic insufficiency:***
The pharmacokinetic and/or pharmacodynamic properties of DYNACAZ MR may be altered in patients with hepatic insufficiency or severe renal failure. A hypoglycaemic episode occurring in these patients may be prolonged, so appropriate management should be initiated.

***Skin reactions:***
There is a potential for the occurrence of erythema multiforme, toxic dermal necrolysis and allergic vasculitis.

***Laboratory tests:***
Measurement of glycosylated haemoglobin levels (for fasting venous plasma glucose) is recommended in assessing blood glucose control.
Blood glucose self-monitoring may also be useful.
Treatment of patients with G6PD-deficiency with sulphonylurea agents can lead to haemolytic anaemia. Since gliclazide belongs to the chemical class of sulfonylurea medicines, caution should be used in patients with G6PD-deficiency and a non-sulfonylurea alternative should be considered.

***Lactose:***
DYNACAZ 30/60/90 mg MR contain 73,50 mg, 93,40 mg and 140, 10 mg lactose monohydrate per tablet, respectively. This should be taken into account in patients with diabetes mellitus. Patients with the rare hereditary conditions of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take DYNACAZ MR.

**Paediatric population**
The safety and efficacy of DYNACAZ MR in children has not been established (see section 4.3).

**4.5 Interaction with other medicines and other forms of interaction**
**Hypoglycaemia may occur with concomitant use of DYNACAZ MR and the following medicines:**

***Combination which is contraindicated:***
Miconazole (systemic route, oromucosal gel) – increases the hypoglycaemic effect with possible onset of hypoglycaemic symptoms, or even coma and is therefore contraindicated (see section 4.3).

***Combinations which are not recommended:***
*Phenylbutazone* (systemic route) – increases the hypoglycaemic effect of sulphonylureas (displaces their binding to plasma proteins and/or reduces their elimination). It is preferable to use a different anti-inflammatory medicine, or else to warn the patient and emphasise the importance of self-monitoring. Where necessary, adjust the dose during and after treatment with the anti-inflammatory medicine.
*Alcohol* – increases the hypoglycaemic reaction (by inhibiting compensatory reactions) that can lead to the onset of hypoglycaemic coma. Avoid alcohol or medicines containing alcohol.

***Combinations requiring precautions during use:***
Potentiation of the blood glucose lowering effect and thus, in some instances, hypoglycaemia may occur when one of the following medicines is taken:
- anabolic steroids and androgens
- angiotensin-converting enzyme inhibitors: captopril and enalapril
- antidysrhythmics: disopyramide
- antibacterials: chloramphenicol, sulphonamides, fluoroquinolone antibiotics, tetracyclines, clarithromycin
- antidepressants and monoamine-oxidase inhibitors: fluoxetine
- appetite suppressants: fenfluramine
- azole antifungals: ketoconazole, itraconazole, voriconazole, fluconazole (systemic route, oral gel)
- H2 receptor antagonists – cimetidine and ranitidine
- fibrates: clofibrate
- insulin and other oral antidiabetic medicines (acarbose, metformin, thiazolidinediones, dipeptidyl peptidase-4 inhibitors, GLP-1 receptor agonists)
- salicylates or Non-steroidal anti-inflammatory medicines (NSAIDs)
- sulphinpyrazone
- sulphonamides.

Sympatholytic medicines (e.g. beta-blockers, clonidine) may blunt the signs of adrenergic response to hypoglycaemia, as well as impair mechanisms that control the normal physiological response to a fall in blood glucose, thereby increasing the risk of a severe hypoglycaemic reaction.

**Hyperglycaemia may occur with concomitant use of DYNACAZ MR with the following:**
***Combination which is not recommended:***
Danazol – diabetogenic effect of danazol. If the use of gliclazide, as in DYNACAZ MR, cannot be avoided, warn the patient and emphasise the importance of urine and blood glucose monitoring. It may be necessary to adjust the dose of DYNACAZ MR during and after treatment with danazol.

***Combinations requiring precautions during use:***
- epinephrine (adrenaline) and other sympathomimetic medicines
- corticosteroids
- calcium channel blocking medicines
- phenothiazines, chlorpromazine (neuroleptic medicine): high doses (> 100 mg/day) increase blood glucose levels (reduced insulin release)
- clonidine
- diazoxide, parenteral
- diuretics
- ephedrine, pseudoephedrine and common cold products
- glucagon
- glucocorticoids (systemic and local route: intra-articular, cutaneous and rectal preparations) and tetracosactrin: increase in blood glucose levels with possible ketosis
- isoniazid
- lithium
- oestrogens and progesterones
- phenytoin
- rifampicin
- thyroid hormones
- St John's Wort (*hypericum performatum*) preparations: Gliclazide exposure is decreased by St John's Wort. Emphasise the importance of blood glucose level monitoring
- ritodrine, salbutamol, terbutaline (I.V.) and other beta-adrenergic medicines: increased blood glucose levels due to beta-2 agonist effects. Emphasise the importance of monitoring blood glucose levels. If necessary, switch to insulin.

***Combinations which must be taken into account:***
- barbiturates may prolong the effect of DYNACAZ MR.

**The following products may cause dysglycaemia:**
***Combinations requiring precautions during use:***
*Fluoroquinolones*: in case of a concomitant use of DYNACAZ MR and a fluoroquinolone, the patient should be warned of the risk of dysglycaemia, and the importance of blood glucose monitoring should be emphasised.

*Anticoagulant therapy (coumarin derivatives such as warfarin)*: DYNACAZ MR may lead to weakening or potentiation of anticoagulation during concurrent treatment. Adjustment of the anticoagulant may be necessary and INR should be monitored.

**4.6 Fertility, pregnancy and lactation**
**Pregnancy**
Safety and efficacy in pregnancy has not been established (see section 4.3).

**Breastfeeding**
Safety and efficacy in lactation has not been established (see section 4.3).

**Fertility**
No effect on fertility or reproductive performance has been reported.

**4.7 Effects on ability to drive and use machines**
DYNACAZ MR has no, or negligible influence, however, alertness and reactions may be impaired by hypo- or hyperglycaemia, especially when initiating treatment or altering doses. This may affect the ability to drive or operate machinery.

**4.8 Undesirable effects**
**a). Summary of the safety profile**
The most frequent adverse reaction with DYNACAZ MR is hypoglycaemia – especially if mealtimes are irregular and, in particular, if meals are skipped.

Hypoglycaemia may range from mild to severe and life threatening with possible symptoms that may include: headache, intense hunger, nausea, vomiting, lassitude, sleep disorders, sleepiness, nightmares, agitation, aggression, poor concentration, reduced awareness and slowed reactions, restlessness, depression, delirium, apathy, confusion, visual and speech disorders, slurred speech, aphasia, seizures, tremor, paresis, sensory disorders, dizziness, feeling of powerlessness, behavioural changes that mimic drunkenness, loss of self-control, convulsions, shallow respiration, bradycardia, drowsiness, loss of consciousness, coma, adrenergic counter-regulation (cold sweats, sweating, clammy skin, anxiety, tremor, tachycardia, hypertension, palpitations, angina pectoris, cardiac dysrhythmia).
Usually, symptoms disappear after intake of carbohydrates (sugar). However, artificial sweeteners have no effect. Experience with other sulfonylureas shows that hypoglycaemia can recur even when measures prove effective initially (see section 4.4).
If a hypoglycaemic episode is severe or prolonged, even if temporarily controlled by the intake of sugar, immediate medical treatment or hospitalisation is required.

**b). Tabulated summary of adverse reactions**

| System Organ Class | Frequency | Side effects |
|---|---|---|
| **Blood and lymphatic system disorders** | *Less frequent* | Leukopenia, thrombocytopenia, aplastic or haemolytic anaemia, agranulocytosis, pancytopenia, eosinophilia, blood dyscrasias, granulocytopenia, erythrocytopenia |
| **Immune system disorders** | *Less frequent* | Rash, allergic vasculitis |
| **Endocrine disorders** | *Less frequent* | Hypoglycaemia |
| **Metabolism and nutrition disorders** | *Less frequent* | Hyponatraemia, anorexia |
| **Nervous system disorders** | *Frequent* | Headache, dizziness, drowsiness |
| **Eye disorders** | *Less frequent* | Blurred vision and/or changes in accommodation |
| **Gastrointestinal disorders** | *Frequent* | Constipation, diarrhoea, dyspepsia, flatulence, heartburn, loss of or increase in appetite, weight gain, nausea, stomach pain, fullness or discomfort, vomiting, alterations in sense of taste (metallic taste) |
| **Hepato-biliary disorders** | *Less frequent* | Increased levels of hepatic enzymes (alanine amino-transferase, aspartate amino transferase, alkaline phosphatase), hepatitis, cholestasis, cholestatic jaundice, hepatic function impairment, hepatic porphyria, porphyria cutanea tarda, liver failure |
| **Skin and subcutaneous tissue disorders** | *Frequency unknown* | Erythema multiforme, photosensitivity, pruritus, urticaria and maculopapular rashes, bullous reactions (such as Stevens-Johnson syndrome and toxic epidermal necrolysis), exfoliative dermatitis, erythema nodosum, angioedema, drug rash with eosinophilia and systemic symptoms (DRESS) |
| **Renal and urinary disorders** | *Frequent* | Polyuria |

**c). Description of selected adverse reactions**
Hypoglycaemia may be prevented if mealtimes are regular and, in particular, if no meals are skipped.
Usually, symptoms disappear after intake of carbohydrates (sugar).
If a hypoglycaemic episode is severe or prolonged, and even if it is temporarily controlled by intake of sugar, immediate medical treatment or even hospitalisation are required.

**Reporting of suspected adverse reactions**
Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Health care professionals are asked to report any suspected adverse reactions to SAHPRA via the online service for adverse drug reaction reporting by following the link: https://www.sahpra.org.za/Publications/Index/8. An email can be sent directly to the company, pharmacovigilance@pharmadynamics.co.za to ensure safety of the product.

**4.9 OVERDOSE**
**Signs and symptoms:**
An overdose of DYNACAZ MR may cause hypoglycaemia which could be severe or prolonged. Moderate symptoms of hypoglycaemia, without any loss of consciousness, or neurological signs must be corrected by carbohydrate intake, dose adjustment and/or modification of diet.

**Management of overdose:**
Treatment is symptomatic and supportive.
Strict monitoring should be continued until the patient is out of danger. Severe hypoglycaemia reactions, with coma, convulsions or other neurological disorders should be treated as a medical emergency, requiring immediate hospitalisation.
If hypoglycaemic coma is diagnosed or suspected, the patient should be given a rapid IV injection of 50 mL of concentrated glucose solution (50 %). This should be followed by continuous infusion of a more dilute solution (10 %), at a rate necessary to maintain blood glucose levels above 5,5 mmol/L. Patients should be monitored closely, long enough to make sure that hypoglycaemia will not re-occur, and, depending on the patient's condition, the doctor will decide if further monitoring is necessary. Dialysis is of no benefit in these patients due to strong binding of gliclazide to proteins.

**5. PHARMACOLOGICAL PROPERTIES**
**5.1 Pharmacodynamic properties**
Pharmacotherapeutic group: Sulfonamides, urea derivative
ATC code: A10BB09
Pharmacological classification: A 21.2 Oral Hypoglycaemics

**Mechanism of action:**
Gliclazide, a second-generation sulphonylurea, lowers blood glucose concentrations by stimulating insulin release from pancreatic beta cells. In addition to this pancreatic action, it has been demonstrated that gliclazide administration may improve the metabolic utilisation of glucose at peripheral level.

**5.2 Pharmacokinetic properties**
**Absorption:**
Following oral administration, gliclazide is readily absorbed from the gastrointestinal tract. Food intake does not affect the rate or degree of absorption.
Maximum serum concentrations of gliclazide are reached approximately 6 hours after oral administration. Its effect is dose-dependent over the dosage range of 30 to 120 mg.

**Distribution:**
Gliclazide has very high plasma protein binding (~ 95 %).
The volume of distribution is around 30 litres.
A single dose of gliclazide maintains glucose lowering effects over 24 hours.

**Biotransformation:**
Gliclazide is mainly metabolised in the liver and excreted in the urine, less than 1 % of the unchanged form is found in the urine. No active metabolites have been detected in plasma.

**Elimination:**
The elimination half-life of gliclazide varies between 12 and 20 hours.

**Linearity/non-linearity:**
The relationship between the dose administered ranging up to 120 mg and the area under the concentration time curve is linear.

**Pharmacokinetics in special patient groups**
Elderly:
No clinically significant changes in pharmacokinetic parameters have been observed in elderly patients.

**5.3 Preclinical safety data**
Preclinical data reveal no special hazards for humans based on conventional studies of repeated dose toxicity and genotoxicity. Long term carcinogenicity studies have not been done. No teratogenic changes have been shown in animal studies, but lower foetal body weight was observed in animals receiving doses 25-fold higher than the maximum recommended dose in humans. Fertility and reproductive performance were unaffected after gliclazide administration in animal studies.

**6. PHARMACEUTICAL PARTICULARS**
**6.1 List of excipients**
**DYNACAZ 30 mg MR:**
Calcium carbonate
Colloidal silica dioxide
Hypromellose
Lactose monohydrate
Magnesium stearate

**DYNACAZ 60 mg MR and DYNACAZ 90 mg MR:**
Hypromellose
Lactose monohydrate
Magnesium stearate
Silica colloidal anhydrous.

**6.2 Incompatibilities**
Not applicable.

**6.3 Shelf life**
36 months
Store at or below 30 °C in a dry place. Protect from light.
Keep the blister in the carton until required for use.

**6.4 Special precautions for storage**
This medicine does not require any special storage conditions.

**6.5 Nature and contents of container**
DYNACAZ 30 mg MR tablets are packed in Aluminium/PVC blister packs of 10 tablets per blister strip; each printed outer carton contains 60 tablets.
DYNACAZ 60 mg MR tablets are packed into OPA/Al/PVC and aluminium foil blister strips. 28 (2 x 14) or 30 (2 x 15) tablets will be packed into a cardboard box.
DYNACAZ 90 mg MR tablets are packed into OPA/Al/PVC and aluminium foil blister strips. Blister strips containing a total of either 30, 60 or 90 tablets will be packed into a cardboard box.

**6.6 Special precautions for disposal**
No special precautions required.

**7. HOLDER OF THE CERTIFICATE OF REGISTRATION**
Pharma Dynamics (Pty) Ltd
1st Floor Grapevine House, Steenberg Office Park
Silverwood Close
Westlake, Cape Town
7945, South Africa

**8. REGISTRATION NUMBER(S)**
DYNACAZ 30 mg MR: A42/21.2/0249
DYNACAZ 60 mg MR: A48/21.2/1194
DYNACAZ 90 mg MR: A53/21.2/0083

**9. DATE OF FIRST AUTHORISATION**
DYNACAZ 30 mg MR: 11 November 2011
DYNACAZ 60 mg MR: 15 June 2021
DYNACAZ 90 mg MR: 15 June 2021

**10. DATE OF REVISION OF THE TEXT**
15 June 2021

DYNACAZ 30 mg MR Namibia:
NAM: NS2 12/21.2/0110

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**PATIENT INFORMATION LEAFLET**

**SCHEDULING STATUS** S3

**DYNACAZ 30 mg MR modified release tablets**
**DYNACAZ 60 mg MR modified release tablets**
**DYNACAZ 90 mg MR modified release tablets**

**Gliclazide**

**DYNACAZ 30 mg MR contains sugar (73,50 mg lactose monohydrate per tablet)**
**DYNACAZ 60 mg MR contains sugar (93,40 mg lactose monohydrate per tablet)**
**DYNACAZ 90 mg MR contains sugar (140,10 mg lactose monohydrate per tablet)**

**Read all of this leaflet carefully before you start taking DYNACAZ MR**
- Keep this leaflet. You may need to read it again.
- If you have further questions, please ask your doctor, pharmacist, nurse or other healthcare provider.
- DYNACAZ MR has been prescribed for you personally and you should not share your medicine with other people. It may harm them, even if their symptoms are the same as yours.

**What is in this leaflet**

1. What DYNACAZ MR is and what it is used for
2. What you need to know before you use DYNACAZ MR
3. How to use DYNACAZ MR
4. Possible side effects
5. How to store DYNACAZ MR
6. Contents of the pack and other information


**1. What DYNACAZ MR is and what it is used for**
DYNACAZ MR contains gliclazide and belongs to a group of medicines called sulphonylurea antidiabetic medicine. It is used to treat a certain type of diabetes mellitus called type 2 diabetes in adults, when diet, exercise and weight loss alone do not have an adequate effect on keeping blood sugar at the correct level.
When you have type 2 diabetes, the amount of insulin your pancreas produces may not be enough or your body may not be using it properly and you may still need more. DYNACAZ MR works by causing your pancreas to release more insulin into the blood stream.

**2. What you need to know before you take DYNACAZ MR**
**Do not take DYNACAZ MR:**
- if you are hypersensitive (allergic) to gliclazide, sulphonylureas (medicine for diabetes), sulphonamides (a type of antibiotic), or to any of the ingredients of DYNACAZ MR (see section 6)
- if you have type 1 diabetes mellitus (type 1 diabetes patients cannot produce or release insulin from their pancreas)
- if you have ketone bodies and sugar in your urine (this may mean you have diabetic keto-acidosis), a diabetic pre-coma or coma
- if you have a liver disease
- if you have a kidney disease
- if you are taking a medicine to treat fungal infections called miconazole (see Other medicines with DYNACAZ MR)
- if you are a child as the safety of DYNACAZ MR has not been studied in children
- if you are pregnant or breastfeeding your baby.

**Warnings and precautions**
**Take special care with DYNACAZ MR:**
Before taking DYNACAZ MR you should talk to your doctor. You should observe the treatment plan prescribed by your doctor to achieve proper blood sugar levels. This means, apart from regular tablet intake, to observe the dietary regimen, have physical exercise and, where necessary, reduce weight.

During DYNACAZ MR treatment regular monitoring of your blood, (and possibly urine), sugar level and also your glycated haemoglobin ($HbA_{1c}$) is necessary

In the initial weeks of treatment, the risk of low blood sugar may be increased and careful monitoring is necessary. Prolonged or serious episodes of hypoglycaemia (low blood sugar), even if controlled by sugar intake, require immediate medical treatment or even hospitalisation.

Low blood sugar (hypoglycaemia) may occur:
- if you are a patient, especially elderly or unable to cooperate
- if you do not eat meals at regular intervals or skip meals altogether
- if you are fasting
- if you are malnourished
- if you change your diet
- if you increase your physical activity and carbohydrate intake does not match this increase
- if you drink a significant amount of alcohol, especially when skipping meals
- if you have any severe abnormal condition of the blood vessels (arteries and veins), including severe heart disease
- if you are taking or have recently stopped taking high doses of corticosteroids (used for pain and inflammation)
- if you suffer from particular hormone-induced disorders (functional disorders of the thyroid gland, of the pituitary gland or adrenal cortex)
- if your kidney function or liver function is severely decreased
- if you take other medicines or natural remedies at the same time
- if you have taken an overdose of DYNACAZ MR.

If you have low blood sugar you may have the following symptoms:
headache, intense hunger, nausea, vomiting, weariness, sleep disorders, restlessness, aggressiveness, poor concentration, reduced alertness and reaction time, depression, confusion, speech or visual disorders, tremor, sensory disturbances, dizziness, and helplessness.

The following signs and symptoms may also occur: sweating, clammy skin, anxiety, fast or irregular heartbeat, high blood pressure, sudden strong pain in the chest that may radiate into nearby areas (angina pectoris).

If blood sugar levels continue to drop you may suffer from considerable confusion (delirium), develop convulsions, lose self-control, your breathing may be shallow and your heartbeat slowed down, you may become unconscious.

In most cases the symptoms of low blood sugar vanish very quickly when you consume some form of sugar, for instance glucose tablets, sugar cubes, sweet juice, sweetened tea. Remember that artificial sweeteners are not effective. You should therefore always carry some form of sugar with you (glucose tablets, sugar cubes). Please contact your doctor or the nearest hospital if taking sugar does not help or if the symptoms recur.

In order to avoid gastrointestinal side effects (see Side effects) you should take your tablets with breakfast. Should you experience side effects affecting the liver, your doctor may change your medicine.

If you have a family history of or know you have the hereditary condition glucose-6-phosphate dehydrogenase (G6PD) deficiency (abnormality of red blood cells), lowering of the haemoglobin level and breakdown of red blood cells (haemolytic anaemia) can occur. Contact your doctor before taking DYNACAZ MR.

Symptoms of low blood sugar may be absent, less obvious, or develop very slowly, or you are not aware in time that your blood sugar level has dropped. This may happen if you are an elderly patient taking certain medicines (for instance those acting on the central nervous system and beta blockers).

It is important that you learn which symptoms of low blood sugar you usually have, so that you can treat it quickly. You must also educate your family members about the symptoms of hypoglycaemia and how to treat them.

Symptoms of high blood sugar (hyperglycaemia) may occur when: gliclazide has not yet sufficiently reduced the blood sugar, when you have not complied with the treatment plan prescribed by your doctor, if you take St John's Wort (*hypericum perforatum*) preparations, or in special stress situations. If you are in stress situations (accidents, surgical operations, fever etc.) your doctor may temporarily switch you to insulin therapy.

Symptoms of high blood sugar may include thirst, frequent urination, dry mouth, dry itchy skin, skin infections and reduced performance. If these symptoms occur, you must contact your healthcare provider or pharmacist.

The effects of DYNACAZ MR may reduce over long periods of time and your doctor may increase your dose and request you increase the frequency of monitoring of your sugar levels.

Blood glucose disturbance (low blood sugar and high blood sugar) can occur when DYNACAZ MR is prescribed at the same time than medicines belonging to a class of antibiotics called fluoroquinolones, especially in elderly patients. In this case, your doctor will remind you the importance of monitoring your blood glucose.

There is a potential for the occurrence of serious skin conditions to develop (toxic dermal necrolysis and allergic vasculitis). Symptoms include a painful, red area that spreads quickly, skin peeling without blistering, raw areas of skin, discomfort, fever, purple-coloured spots and patches on the skin, blisters, hives, open sores).
Your doctor may request tests to monitor your condition before or during treatment.

The safety and efficacy of DYNACAZ MR in children has not been established (see Do not take DYNACAZ MR).

**Other medicines and DYNACAZ MR**
Always tell your healthcare provider if you are taking any other medicine (this includes complementary or traditional medicines).

The following medicine increases the risk of hypoglycaemia or even coma and should not be used:
- a medicine containing miconazole (used to treat fungal infections) increases the risk of (see Do not take DYNACAZ MR).

The following medicines or substances may cause your blood sugar levels to fall even lower than normal when taken together with DYNACAZ MR and are therefore not recommended for use:
- phenylbutazone (used to treat pain and inflammation)
- alcohol increases the risk of hypoglycaemia (low blood sugar) and coma. Alcohol and medicines containing alcohol should be avoided.

The blood sugar lowering effect of DYNACAZ MR may be strengthened and signs of low blood sugar levels may occur when one of the following medicines is taken:
- sulphinpyrazone (anti-gout medicine)
- anabolic steroids (a steroid hormone which promotes muscle growth) and androgens (male sex hormone)
- certain medicines used to treat high blood pressure and heart disease called ACE inhibitors (captopril, enalapril, quinidine, quinine and clonidine), and antidysrhythmics (disopyramide)
- medicines to treat high blood pressure or heart failure (beta blockers, ACE-inhibitors such as captopril, or enalapril)
- antibiotics (chloramphenicol, sulphonamides, quinolones, tetracyclines, clarithromycin)
- certain antidepressants such as fluoxetine (monoamine-oxidase inhibitors)
- certain medicines used to treat fungal infections, such as ketoconazole, itraconazole, voriconazole, fluconazole
- the appetite suppressant fenfluramine
- ranitidine and cimetidine (medicines used to treat heartburn)
- fibrates (such as clofibrate) used to treat high cholesterol
- insulin and other oral antidiabetic medicines (such as acarbose, metformin, thiazolidinediones, GLP-1 receptor inhibitors)
- certain medicines used to treat pain and inflammation (NSAIDs and salicylates)
- beta-blockers (used to control heart rhythm, treat angina, and reduce high blood pressure) may increase the chance that high or low blood sugar can occur. Also, they can hide the symptoms of low blood sugar.

The blood glucose lowering effect of gliclazide may be weakened and raised blood sugar levels may occur when one of the following medicines is taken with DYNACAZ MR:
- danazol used to treat breast disorders, heavy menstrual bleeding and endometriosis is not recommended for use with DYNACAZ MR. If it cannot be avoided, regular urine and blood glucose monitoring must be done. Your dose of DYNACAZ MR may need to be adjusted.
- epinephrine (adrenaline), asthma medicines (salbutamol, terbutaline), cough and cold medicines containing ephedrine and pseudoephedrine
- corticosteroids (cortisone-like medicines used to treat inflammation)
- calcium channel blockers, clonidine, diazoxide (cardiovascular medicines used to treat heart problems)
- chlorpromazine (tranquiliser or sedative also used for nausea or vomiting)
- lithium (used to treat certain types of depression)
- thiazide diuretics (water tablets)
- anti-epileptic medication such as phenytoin
- glucagon (a hormone that assists with the breakdown of glycogen to glucose)
- female hormones oestrogen and progesterone
- antibacterial medicines rifampicin and isoniazid
- thyroid hormones
- glucocorticoids (used to assist the body to break down carbohydrates, proteins and fats)
- medicines to treat asthma or used during labour (intravenous salbutamol, ritodrine and terbutaline).

Blood glucose disturbance (low blood sugar and high blood sugar) can occur when a medicine belonging to a class of antibiotics called fluoroquinolones is taken at the same time than DYNACAZ MR, especially in elderly patients.

DYNACAZ MR may increase the effects of anticoagulants (medicines which reduce blood clotting e.g. warfarin). Your dose of anticoagulant may need to be adjusted.

**DYNACAZ MR with food and drink**
DYNACAZ MR must be taken with food. The tablet must be swallowed whole with half a glass of water and should be taken immediately before a substantial breakfast or the first main meal of the day. You should not miss a meal after you have taken the tablets.
Drinking alcohol is not recommended as it can alter the control of your diabetes in an unpredictable manner.

**Pregnancy, breastfeeding and fertility**
If you are pregnant or breastfeeding, think you may be pregnant or are planning to have a baby, please consult your doctor, pharmacist or other health care provider for advice before taking this medicine.

You should not take this medicine if you are pregnant or breastfeeding your baby (see Do not take DYNACAZ MR).

**Driving and using machines:**
Alertness and reactions may be impaired by hypo- or hyperglycaemia, especially when initiating treatment or altering doses. You should be aware of the symptoms of hypoglycaemia (low blood sugar) which include dizziness, poor concentration, confusion, sleepiness and blurred vision.
It is not always possible to predict to what extent DYNACAZ MR may interfere with your daily activities. You should ensure that you do not engage in the above activities until you are aware of the measure to which DYNACAZ MR affects you.

**DYNACAZ MR contains lactose**
DYNACAZ MR contains lactose. If you have been told by your doctor that you have an intolerance to some sugars, contact your doctor before taking this medicinal product.

**3. How to take DYNACAZ MR**
Do not share medicines prescribed for you with any other person. Always use DYNACAZ MR exactly as your doctor or pharmacist has told you. Check with your doctor or pharmacist if you are not sure.

Your doctor will tell you how long your treatment with DYNACAZ MR will last. Do not stop treatment early because high blood sugar symptoms will return. If you have the impression that the effect of DYNACAZ MR is too strong or too weak, tell your doctor or pharmacist.