

SUMMARY OF PRODUCT CHARACTERISTICS

Name of the medicinal product

Trimetazidine Hydrochloride Modified Release Tablets 35 mg

1. Qualitative and quantitative composition

Each film coated modified release tablet contains:

Trimetazidine Hydrochloride BP 35 mg

Excipients Q.S.

Colour Erythrosine

For excipients see section 6.1

2. Pharmaceutical form

Film modified release tablet.

A pink coloured, round in shape, biconvex, film-coated modified release tablet, having plain on both sides.

3. Clinical particulars

3.1 Indications

Trimetazidine is indicated in adults as add-on therapy for the symptomatic treatment of patients with stable angina pectoris who are inadequately controlled by or intolerant to first-line antianginal therapies.

3.2 Posology and method of administration

Posology

Oral administration.

The dose is one tablet of 35mg of trimetazidine twice daily during meals.

Special populations

Patients with renal impairment

In patients with moderate renal impairment (creatinine clearance [30-60] ml/min), the recommended dose is 1 tablet of 35mg in the morning during breakfast.

Elderly patients

Elderly patients may have increased trimetazidine exposure due to age-related decrease in renal function. In patients with moderate renal impairment (creatinine clearance [30-60] ml/min), the recommended dose is 1 tablet of 35mg in the morning during breakfast.

Dose titration in elderly patients should be exercised with caution.

Paediatric population:

The safety and efficacy of trimetazidine in children aged below 18 years have not been established. No data are available.

3.3 Contraindications

- Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.
- Parkinson disease, parkinsonian symptoms, tremors, restless leg syndrome, and other related movement disorders,
- Severe renal impairment (creatinine clearance < 30ml/min).

3.4 Special warnings and precautions for use

This product should be used with caution in patients who are predisposed to closed-angle glaucoma.

The drug is not a curative treatment for angina attacks, nor is indicated as an initial treatment for unstable angina, or myocardial infarction. It should not be used in the pre-hospital phase nor during the first days of hospitalisation.

In the event of an angina attack, angina pectoris disease should be re-evaluated and an adaptation of the treatment considered.

Trimetazidine can cause or worsen parkinsonian symptoms (tremor, akinesia, hypertonia), which should be regularly investigated, especially in elderly patients. In doubtful cases, patients should be referred to a neurologist for appropriate investigations.

The occurrence of movement disorders such as parkinsonian symptoms, restless leg syndrome, tremors, gait instability should lead to definitive withdrawal of trimetazidine.

These cases have a low incidence and are usually reversible after treatment discontinuation. The majority of the patients recovered within 4 months after trimetazidine withdrawal. If parkinsonian symptoms persist more than 4 months after drug discontinuation, a neurologist opinion should be sought.

Falls may occur, related to gait instability or hypotension, in particular in patients taking antihypertensive treatment.

Caution should be exercised when prescribing trimetazidine to patients in whom an increased exposure is expected:

- moderate renal impairment
- elderly patients older than 75-years old

For Athletes:

This medicine contains an active substance which may give a positive reaction in doping tests.

3.5 Interaction with other medicinal products and other forms of interaction

No drug interactions have been identified.

3.6 Fertility, pregnancy and lactation

Pregnancy:

Studies in animals have not demonstrated a teratogenic effect; however, in the absence of clinical data, the risk of malformation cannot be excluded. Therefore, for safety reasons, prescription should be avoided during pregnancy.

Lactation:

In the absence of data on excretion in breast milk, breastfeeding is not recommended during treatment.

Fertility:

Reproductive toxicity studies have shown no effect on fertility in female and male rates.

3.7 Effects on ability to drive and use machines

Trimetazidine does not have haemodynamic effects in clinical studies, however cases of dizziness and drowsiness have been observed in post-marketing experience (see section 4.8), which may affect ability to drive and use machines.

3.8 Undesirable effects

Trimetazidine may cause the following undesirable effects ranked under the following frequency:

Very common ($\geq 1/10$); common ($\geq 1/100$, $< 1/10$); uncommon ($\geq 1/1000$, $< 1/100$); rare ($\geq 1/10000$, $< 1/1000$); very rare ($< 1/10000$), not known (cannot be estimated from the available data).

System Organ Class	Frequency	Preferred Term
Nervous system disorders	Common	Dizziness, headache
	Not known	Parkinsonian symptoms (tremor, akinesia, hypertonia), gait instability, restlessleg syndrome, other related movement disorders, usually reversible after treatment discontinuation
	Not known	Sleep disorders (insomnia, drowsiness)
Cardiac disorders	Rare	Palpitations, extrasystoles, tachycardia
Vascular disorders	Rare	Arterial Hypotension , Orthostatic hypotension that may be associated with malaise, dizziness or fall, in particular in patients taking antihypertensive treatment, flushing
Gastrointestinal disorders	Common	Abdominal pain, diarrhoea, dyspepsia, nausea and vomiting
	Not known	Constipation
Skin and subcutaneous tissue disorders	Common	Rash, pruritus, urticaria.
	Not known	Acute generalized exanthematus pustulosis (AGEP), angioedema
General disorders and administration conditions	Common	Asthenia
Blood and lymphatic system disorders	Not known	Agranulocytosis Thrombocytopenia Thrombocytopenic purpura
Hepatobiliary disorders	Not known	Hepatitis

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are requested to report any suspected adverse reactions via pharmacy and poisons board, Pharmacovigilance Electronic Reporting System (PvERS) <https://pv.pharmacyboardkenya.org>.

3.9 Overdose

No cases of occurrence of poisoning by trimetazidine owing to its overdose have been reported. Treatment should be symptomatic.

4. Pharmacological properties

4.1 Pharmacodynamic properties

Other cardiovascular antianginal drug.

ATC code: C01E B15 (C: cardiovascular system)

Mechanism of action

Trimetazidine inhibits β -oxidation of fatty acids by blocking long-chain 3-ketoacyl-CoA thiolase, which enhances glucose oxidation. In an ischaemic cell, energy obtained during glucose oxidation requires less oxygen consumption than in the β -oxidation process. Potentiation of glucose oxidation optimizes cellular energy processes, thereby maintaining proper energy metabolism during ischaemia.

Pharmacodynamic effects

In patients with ischaemic heart disease, trimetazidine acts as a metabolic agent, preserving the myocardial high-energy phosphate intracellular levels. Anti-ischemic effects are achieved without concomitant haemodynamic effects.

Clinical efficacy and safety

Clinical studies have demonstrated the efficacy and safety of trimetazidine in the treatment of patients with chronic angina, either alone or when the benefit from other antianginal medicinal products was insufficient. In a 426-patients randomized, double blind, placebo-controlled study (TRIMPOL-II), trimetazidine (60mg/day) added to metoprolol 100mg daily (50 mg b.i.d) for 12 weeks significantly improved statistically exercise tests parameters and clinical symptoms as compared to placebo: total exercise duration +20.1s, $p=0.023$, total workload +0.54 METs, $p=0.001$, time to 1-mm ST-segment depression +33.4s, $p=0.003$, time to onset of angina +33.9s, $p<0.001$, angina attacks/week -0.73, $p=0.014$ and short acting nitrates consumption/week, -0.63, $p=0.032$, without hemodynamic changes.

In a 223 patients randomized, double blind, placebo-controlled study (Sellier), one 35 mg trimetazidine modified release tablet (b.i.d.) added to 50 mg atenolol (o.d.) for 8 weeks produced a significant increase (+34.4s, $p=0.03$) in the time to 1-mm ST-segment depression in exercise tests, in a sub-group of patients ($n=173$), when compared to placebo, 12 hours after taking the drug. A significant difference was also evidenced for the time to onset of angina pectoris ($p=0.049$). No significant difference between groups could be found for the other secondary endpoints (total exercise duration, total workload and clinical endpoints).

In a 1962 patients three-month randomised, double-blinded study (Vasco study) on top of atenolol 50 mg/d, two dosages of trimetazidine (70 mg/d and 140 mg/d) were tested versus placebo. In the overall population, including both asymptomatic and symptomatic patients, trimetazidine failed to demonstrate a benefit on both ergometric (total exercise duration, time to onset of 1mm ST and time to onset angina) and clinical endpoints. However, in the subgroup of symptomatic patients ($n=1574$) defined in a post-hoc analysis, trimetazidine (140 mg) significantly improved total exercise duration (+23.8 s versus +13.1 s placebo; $p=0.001$) and time to onset of angina (+46.3 s versus +32.5 s placebo; $p=0.005$).

4.2 Pharmacokinetic properties

- After oral administration, maximum concentration is found, on average, 5 hours after taking the tablet. Over 24 hours the plasma concentration remains at levels above or equal to 75% of the maximum concentration for 11 hours. Steady state is reached by the 60th hour, at the latest.
- The pharmacokinetic characteristics of Trimetazidine Prolonged Release 35 mg Tablets are not influenced by meals.
- The apparent distribution volume is 4.8 l/kg; protein binding is low: *in vitro* measurements give value of 16%.
- Trimetazidine is eliminated primarily in the urine, mainly in the unchanged form.
- The elimination half-life of Trimetazidine Prolonged Release 35 mg Tablets is an average of 7 hours in healthy young volunteers and 12 hours in subjects aged more than 65 years. Total clearance of trimetazidine is the result of major renal clearance which is directly correlated to creatinine clearance and, to a lesser extent, to liver clearance which is reduced with age.
- A specific clinical study carried out in an elderly population using a dosage of 2 tablets per day taken in 2 doses, analysed by a kinetic population method, showed an increase in plasma exposure which does not justify a dosage alteration.

4.3 Preclinical safety data

The acute toxicity of trimetazidine in mice, rats and guinea pigs is low. Repeated-dose toxicity studies with trimetazidine have been performed in rats and in dogs and no toxicological target organ was identified in these studies. Trimetazidine was not genotoxic in a standard battery of *in vitro* and *in vivo* tests. Reproductive toxicity studies were performed with trimetazidine in rats, mice and rabbits, and no adverse effects of trimetazidine on reproductive function (especially no teratogenic effects) were observed. In embryotoxicity studies in rats and rabbits, trimetazidine did not show any teratogenic effects. No modifications of reproductive functions were observed in a three generation study performed in rats. No conventional studies on fertility or pre/postnatal development were performed.

5. Pharmaceutical particulars

5.1 List of excipients

Lactose, Empress SR, Ethyl Cellulose, Povidone (PVP K 30), Iso Propyl Alcohol, Magnesium Stearate, Film Coat, Dichloromethane and Erythrosine.

5.2 Incompatibilities

Not applicable.

5.3 Shelf life:

36 months

5.4 Special precautions for storage:

Store below 30°C and protect from direct sunlight.

5.5 Nature and contents of container

2 x 14 pack: 14 tablets packed in Alu-Alu blister and such 2 Alu-Alu blisters are packed in single carton along with pack insert.

5.6 Special precautions for disposal and other handling

Not applicable.

6. Marketing authorization holder

Galaxy Pharmaceutical Ltd.

PO Box 39107-00623, Nairobi (Kenya).

Manufacturer Name:

Ovation Remedies.

Trilokpur road, Kala-Amb Dist. Sirmor, Himachal Pradesh (INDIA)

7. MARKETING AUTHORIZATION NUMBER

CTD12445

8. DATE OF FIRST <REGISTRATION

24/06/2026

9. DATE OF REVISION OF THE TEXT

24/06/2026