

## SUMMARY OF PRODUCT CHARACTERISTICS

### 1 NAME OF THE MEDICINAL PRODUCT

Trandate<sup>®</sup> 200 mg film-coated tablets

### 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 200 mg Labetalol hydrochloride

### 3 PHARMACEUTICAL FORM

Orange coloured, circular, biconvex film-coated tablets engraved Trandate 200 on one face.

### 4 CLINICAL PARTICULARS

#### 4.1 Therapeutic indications

Trandate Tablets are indicated for the treatment of:

1. Mild, moderate or severe hypertension
2. Hypertension in pregnancy
3. Angina pectoris with existing hypertension

#### 4.2 Posology and method of administration

Trandate tablets should be taken orally with food.

*Adults:*

##### **Hypertension**

Treatment should start with 100mg twice daily. In patients already being treated with antihypertensives and in those of low body weight this may be sufficient to control blood pressure. In others, increases in dose of 100mg twice daily should be made at fortnightly intervals. Many patients' blood pressure is controlled by 200mg twice daily and up to 800mg daily may be given as a twice daily regimen. In severe, refractory hypertension, daily doses up to 2400mg have been given. Such doses should be divided into a three or four times a day regimen.

##### **Elderly**

In elderly patients, an initial dose of 50mg twice daily is recommended. This has provided satisfactory control in some cases.

##### **In the hypertension of pregnancy**

The initial dose of 100mg twice daily may be increased, if necessary, at weekly intervals by 100mg twice daily. During the second and third trimester, the severity of the hypertension may require further dose titration to a three times daily regimen, ranging from 100mg tds to 400mg tds. A total daily dose

of 2400mg should not be exceeded. Hospital in-patients with severe hypertension, particularly of pregnancy, may have daily increases in dosage.

### **General**

If rapid reduction of blood pressure is necessary, see the SPC for Trandate Injection. If long-term control of hypertension following the use of Trandate Injection is required, oral therapy with Trandate tablets should start with 100mg twice daily. Additive hypotensive effects may be expected if Trandate tablets are administered together with other antihypertensives e.g. diuretics, methyldopa etc. When transferring patients from such agents, Trandate tablets should be introduced with a dosage of 100mg twice daily and the previous therapy gradually decreased. Abrupt withdrawal of clonidine or beta-blocking agents is undesirable.

### **Angina co-existing with hypertension**

In patients with angina pectoris co-existing with hypertension, the dose of Trandate will be that required to control the hypertension.

### **Children:**

Safety and efficacy in children have not been established

## **4.3 Contraindications**

- Cardiogenic shock.
- Uncontrolled, incipient or digitalis-refractory heart failure.
- Sick sinus syndrome (including sino-atrial block).
- Second or third degree heart block.
- Prinzmetal's angina.
- History of wheezing or asthma.
- Untreated phaeochromocytoma.
- Metabolic acidosis.
- Bradycardia (<45-50 bpm).
- Hypotension.
- Hypersensitivity to labetalol.
- Severe peripheral circulatory disturbances.

## **4.4 Special warnings and precautions for use**

There have been reports of skin rashes and/ or dry eyes associated with the use of beta-adrenoceptor blocking drugs. The reported incidence is small and in most cases the symptoms have cleared when the treatment was withdrawn. Gradual discontinuance of the drug should be considered if any such reaction is not otherwise explicable.

The occurrence of intraoperative floppy iris syndrome (IFIS, a variation of Horner's syndrome) has been observed during cataract surgeries in some patients who were being treated with tamsulosine, or have been treated with tamsulosine in the past. IFIS

has also been reported when other alpha-1-blockers were being used, and the possibility of a class effect cannot be excluded. Since IFIS can lead to a higher chance of complications during cataract surgeries, the ophthalmologist needs to be informed if alpha-1-blockers are currently being used, or have been used in the past.

There have been rare reports of severe hepatocellular injury with labetalol therapy. The hepatic injury is usually reversible and has occurred after both short and long term treatment. Appropriate laboratory testing should be done at the first sign or symptom of liver dysfunction. If there is laboratory evidence of liver injury or the patient is jaundiced, labetalol therapy should be stopped and not re-started.

Due to negative inotropic effects, special care should be taken with patients whose cardiac reserve is poor and heart failure should be controlled before starting Trandate therapy.

Patients particularly those with ischemic heart disease, should not interrupt/discontinue abruptly Trandate therapy. The dosage should gradually be reduced, i.e. over 1-2 weeks, if necessary at the same time initiating replacement therapy, to prevent exacerbation of angina pectoris. In addition, hypertension and arrhythmias may develop.

It is not necessary to discontinue Trandate therapy in patients requiring anaesthesia but the anaesthetist must be informed and the patient should be given intravenous atropine prior to induction. During anaesthesia Trandate may mask the compensatory physiological responses to sudden haemorrhage (tachycardia and vasoconstriction). Close attention must therefore be paid to blood loss and the blood volume maintained. If beta-blockade is interrupted in preparation for surgery, therapy should be discontinued for at least 24 hours. Anaesthetic agents causing myocardial depression (e.g. cyclopropane, trichloroethylene) should be avoided. Trandate may enhance the hypotensive effects of halothane.

In patients with peripheral circulatory disorders (Raynaud's disease or syndrome, intermittent claudication), beta-blockers should be used with great caution as aggravation of these disorders may occur.

Beta-blockers may induce bradycardia. If the pulse rate decreases to less than 50-55 beats per minute at rest and the patient experiences symptoms related to the bradycardia, the dosage should be reduced.

Beta-blockers, even those with apparent cardioselectivity, should not be used in patients with asthma or a history of obstructive airways disease unless no alternative treatment is available. In such cases the risk of inducing bronchospasm should be appreciated and appropriate precautions taken. If bronchospasm should occur after the use of Trandate it can be treated with a beta2-agonist by inhalation, e.g. salbutamol (the dose of which may need to be greater than the usual in asthma) and, if necessary, intravenous atropine 1mg.

Due to a negative effect on conduction time, beta-blockers should only be given with caution to patients with first degree heart block. Patients with liver or kidney insufficiency may need a lower dosage, depending on the pharmacokinetic profile of

the compound. The elderly should be treated with caution, starting with a lower dosage but tolerance is usually good in the elderly.

Patients with a history of psoriasis should take beta-blockers only after careful consideration.

**Risk of anaphylactic reaction:** While taking beta-blockers, patients with a history of severe anaphylactic reaction to a variety of allergens may be more reactive to repeated challenge, either accidental, diagnostic or therapeutic. Such patients may be unresponsive to the usual doses of epinephrine used to treat allergic reaction.

The label will state “Do not take Trandate if you have a history of wheezing or asthma as it can make your breathing worse.”

Trandate Tablets contain sodium benzoate which is a mild irritant to the eyes, nose and mucous membranes. It may increase the risk of jaundice in newborn babies.

Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

Labetalol interferes with laboratory tests for catecholamines.

#### **4.5 Interaction with other medicinal products and other forms of interaction**

Concomitant use not recommended:

- Calcium antagonists such as verapamil and to a lesser extent diltiazem have a negative influence on contractility and atrio-ventricular conduction.
- Digitalis glycosides used in association with beta-blockers may increase atrio-ventricular conduction time.
- Clonidine: Beta-blockers increase the risk of rebound hypertension. When clonidine is used in conjunction with non-selective beta-blockers, such as propranolol, treatment with clonidine should be continued for some time after treatment with the beta-blocker has been discontinued.
- Monoamineoxidase inhibitors (except MOA-B inhibitors).

Use with caution:

- Class I antiarrhythmic agents (e.g. disopyramide, quinidine) and amiodarone may have potentiating effects on atrial conduction time and induce negative inotropic effect.
- Insulin and oral antidiabetic drugs may intensify the blood sugar lowering effect, especially of non-selective beta-blockers. Beta-blockade may prevent the appearance of signs of hypoglycaemia (tachycardia).
- Anaesthetic drugs may cause attenuation of reflex tachycardia and increase the risk of hypotension. Continuation of beta-blockade reduces the risk of arrhythmia during induction and intubation. The anaesthesiologist should be informed when the patient is receiving a beta-blocking agent. Anaesthetic agents causing myocardial depression, such as cyclopropane and trichlorethylene, are best avoided.
- Cimetidine, hydralazine and alcohol may increase the bioavailability of labetalol.

- Several different drugs or drug classes may enhance the hypotensive effects of labetalol: ACE inhibitors; angiotensin-II antagonists; aldesleukin, alprostadil; anxiolytics; hypnotics; moxislyte; diuretics; alpha-blockers.
- Several different drugs or drug classes may antagonise the hypotensive effects of labetalol: NSAIDs, corticosteroids; oestrogens; progesterones.

Take into account:

- Calcium antagonists: dihydropyridine derivatives such as nifedipine. The risk of hypotension may be increased. In patients with latent cardiac insufficiency, treatment with beta-blockers may lead to cardiac failure.
- Prostaglandin synthetase inhibiting drugs may decrease the hypotensive effect of beta-blockers.
- Sympathomimetic agents may counteract the effect of beta-adrenergic blocking agents.
- Concomitant use of tricyclic antidepressants, barbiturates, phenothiazines or other antihypertensive agents may increase the blood pressure lowering effect of labetalol. Concomitant use of tricyclic antidepressants may increase the incidence of tremor.
- Labetalol has been shown to reduce the uptake of radioisotopes of metaiodobenzylguanidine (MIBG), and may increase the likelihood of a false negative study. Care should therefore be taken in interpreting results from MIBG scintigraphy. Consideration should be given to withdrawing labetalol for several days at least before MIBG scintigraphy, and substituting other beta or alpha-blocking drugs.
- Antimalarials such as mefloquine or quinine may increase the risk of bradycardia.
- Ergot derivatives may increase the risk of peripheral vasoconstriction.

#### **4.6 Fertility, pregnancy and lactation**

Although no teratogenic effects have been demonstrated in animals, Trandate should only be used during the first trimester of pregnancy if the potential benefit outweighs the potential risk. Trandate crosses the placental barrier and the possible consequences of alpha- and beta-adrenoceptor blockade in the foetus and neonate should be borne in mind. Perinatal and neonatal distress (bradycardia, hypotension, respiratory depression, hypoglycaemia, hypothermia) has been rarely reported. Sometimes these symptoms have developed a day or two after birth. Response to supportive measures (e.g. intravenous fluids and glucose) is usually prompt but with severe pre-eclampsia, particularly after prolonged intravenous labetalol, recovery may be slower. This may be related to diminished liver metabolism in premature babies.

Beta-blockers reduce placental perfusion, which may result in intrauterine foetal death, immature and premature deliveries. There is an increased risk of cardiac and pulmonary complications in the neonate in the post-natal period.

Intra-uterine and neonatal deaths have been reported with Trandate but other drugs (e.g. vasodilators, respiratory depressants) and the effects of pre-eclampsia, intra-uterine growth retardation and prematurity were implicated. Such clinical experience warns against unduly prolonging high dose labetalol and delaying delivery and against co-administration of hydralazine.

Trandate is excreted in breast milk. Breast-feeding is therefore not recommended.

Nipple pain and Raynaud's phenomenon of the nipple have been reported (see section 4.8).

#### **4.7 Effects on ability to drive and use machines**

There are no studies on the effect of this medicine on the ability to drive. When driving vehicles or operating machines it should be taken into account that occasionally dizziness or fatigue may occur.

#### **4.8 Undesirable effects**

Most side-effects are transient and occur during the first few weeks of treatment with Trandate. They include:

##### *Blood and the lymphatic system disorders*

Rare reports of positive antinuclear antibodies unassociated with disease, hyperkalaemia, particularly in patients who may have impaired renal excretion of potassium, thrombocytopenia.

##### *Psychiatric disorders*

Depressed mood and lethargy, hallucinations, psychoses, confusion, sleep disturbances, nightmares.

##### *Nervous system disorders*

Headache, tiredness, dizziness, tremor has been reported in the treatment of hypertension of pregnancy.

##### *Eye disorders*

Impaired vision, dry eyes.

##### *Cardiac disorders*

Bradycardia, heart block, heart failure, hypotension

##### *Vascular disorders*

Ankle oedema, increase of an existing intermittent claudication, postural hypotension, cold or cyanotic extremities, Raynaud's phenomenon, paraesthesia of the extremities.

*Respiratory, thoracic and mediastinal disorders*

Bronchospasm (in patients with asthma or a history of asthma), nasal congestion, interstitial lung disease.

*Gastrointestinal disorders*

Epigastric pain, nausea, vomiting, diarrhoea.

*Hepato-biliary disorders*

Raised liver function tests, jaundice (both hepatocellular and cholestatic), hepatitis and hepatic necrosis.

*Skin and subcutaneous tissue disorders*

Sweating, tingling sensation in the scalp, usually transient, may occur in a few patients early in treatment, reversible lichenoid rash, systemic lupus erythematosus, exacerbation of psoriasis.

*Musculoskeletal, connective tissue and bone disorders:*

Cramps, toxic myopathy.

*Renal and urinary disorders*

Acute retention of urine, difficulty in micturition.

*Reproductive system and breast disorders*

Ejaculatory failure.

Nipple pain, Raynaud's phenomenon of the nipple (frequency not known)

*General disorders and administration site conditions*

Hypersensitivity (rash, pruritus, angioedema and dyspnoea), drug fever, masking of the symptoms of thyrotoxicosis or hypoglycaemia, reversible alopecia.

**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 asked to report any suspected adverse reactions via Yellow Card Scheme on the MHRA website ([www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard)).

**4.9 Overdose**

Symptoms of overdosage are bradycardia, hypotension, bronchospasm and acute cardiac insufficiency.

After ingestion of an overdose or in case of hypersensitivity, the patient should be kept under close supervision and be treated in an intensive-care ward. Absorption of any drug material still present in the gastro-intestinal tract can

be prevented by gastric lavage, administration of activated charcoal and a laxative. Artificial respiration may be required. Bradycardia or extensive vagal reactions should be treated by administering atropine or methylatropine. Hypotension and shock should be treated with plasma/plasma substitutes and, if necessary, catecholamines. The beta-blocking effect can be counteracted by slow intravenous administration of isoprenaline hydrochloride, starting with a dose of approximately 5mcg/min, or dobutamine, starting with a dose of approximately 2.5mcg/min, until the required effect has been obtained. If this does not produce the desired effect, intravenous administration of 8-10mg glucagon may be considered. If required the injection should be repeated within one hour, to be followed, if necessary, by an iv infusion of glucagon at 1-3mg/hour. Administration of calcium ions, or the use of a cardiac pacemaker, may also be considered.

Oliguric renal failure has been reported after massive overdosage of labetalol orally. In one case, the use of dopamine to increase the blood pressure may have aggravated the renal failure.

Labetalol does have membrane stabilising activity which may have clinical significance in overdosage.

Haemodialysis removes less than 1% labetalol hydrochloride from the circulation.

## **5 PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Labetalol lowers the blood pressure by blocking peripheral arteriolar alpha-adrenoceptors thus reducing peripheral resistance, and by concurrent beta-blockade, protects the heart from reflex sympathetic drive that would otherwise occur. Cardiac output is not significantly reduced at rest or after moderate exercise. Increases in systolic blood pressure during exercise are reduced but corresponding changes in diastolic pressure are essentially normal.

In patients with angina pectoris co-existing with hypertension, the reduced peripheral resistance decreases myocardial afterload and oxygen demand. All these effects would be expected to benefit hypertensive patients and those with co-existing angina.

### **5.2 Pharmacokinetic properties**

The plasma half-life of labetalol is about 4 hours. About 50% of labetalol in the blood is protein bound. Labetalol is metabolised mainly through conjugation to inactive glucuronide metabolites. These are excreted both in urine and via the bile into the faeces.

Only negligible amounts of the drug cross the blood brain barrier in animal studies.

### **5.3 Preclinical safety data**

Not applicable since Trandate Tablets have been used in clinical practice for many years and its effects in man are well known.

## **6 PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

#### ***Tablet Core:***

Lactose  
Magnesium stearate  
Starch maize special  
Starch maize pregelatinised

#### ***Film coating suspension:***

Hydroxypropylmethylcellulose  
Sodium benzoate  
Titanium dioxide  
Sunset yellow  
Methyl hydroxybenzoate  
Propyl hydroxybenzoate  
IMS 740P  
Purified Water

### **6.2 Incompatibilities**

None stated

### **6.3 Shelf life**

60 months

### **6.4 Special precautions for storage**

No special storage conditions are necessary

### **6.5 Nature and contents of container**

Calendar blister pack containing 56 tablets; composed of hard tempered aluminium foil and opaque PVC blister.

Polypropylene container with tamper-evident polyethylene lid containing 250 tablets.

### **6.6 Special precautions for disposal**

None

**7      MARKETING AUTHORISATION HOLDER**

RPH Pharmaceuticals AB,  
Box 603,  
101 32 Stockholm,  
Sweden

**8      MARKETING AUTHORISATION NUMBER(S)**

PL 36301/0015

**9      DATE OF FIRST AUTHORISATION/RENEWAL OF THE  
AUTHORISATION**

01/11/1996

**10     DATE OF REVISION OF THE TEXT**

25/04/2022