

# Betasec®

Atenolol

## Description

Atenolol (**Betasec®**) is a beta-selective adrenergic receptor antagonist which is now widely used in the treatment of hypertension, angina pectoris, cardiac dysrhythmia and myocardial infarction.

## Mode of action

Atenolol (**Betasec®**) antagonizes the chronotropic response to stimulation of the cardiac accelerator nerves.

## Pharmacokinetics

Absorption of atenolol after an oral dose is rapid and consistent but incomplete. Approximately 50% of an oral dose is absorbed from the gastrointestinal tract, the remainder being excreted unchanged in the feces. Only a small amount (6%-16%) of Atenolol is bound to proteins in the plasma. The elimination half-life of oral Atenolol is approximately 6 to 7 hours. Following oral doses of 50 mg or 100 mg, both beta-blocking and antihypertensive effects persist for at least 24 hours.

## Composition

**Betasec® 50 mg tablet:** Each tablet contains Atenolol BP 50 mg.

## Indications

Hypertension, angina pectoris, cardiac arrhythmia, myocardial infarction.

## Dosage & administration

The treatment is started with 50 mg tablet and may be increased upto 100mg. The full effect is evident within 1-2 weeks. For angina pectoris, 50-100 mg daily is recommended. For cardiac arrhythmia, 50-100 mg as prophylactic dose is given. For myocardial infarction, starting dose is 50 mg and then 100 mg daily as maintenance dose.

## Contraindications

Bronchospasm, heart block, heart failure, cardiogenic shock etc.

## Side effects

Cold extremities and fatigue, vivid dreams, insomnia etc.

## Use in pregnancy & lactation

Atenolol is safe and effective in pregnancy associated hypertension. Atenolol is excreted in breast milk but is not associated with any adverse effect.

## Precautions

The drug should not be given to patients with a history of bronchospasm.

Abrupt withdrawal of Atenolol should be avoided. It may mask the symptoms of hypoglycaemia.

## Drug interactions

*Disopyramide:* Atenolol reduces the clearance of disopyramide by 20%. Additive negative inotropic effects on the heart may be produced. *Ampicillin:* At doses of 1g and above may reduce Atenolol levels. *Oral antidiabetics and insulin:* Beta-blockers may decrease tissue sensitivity to insulin and inhibit insulin secretion e.g. in response to oral antidiabetics. Atenolol has potential for these actions.

## Over dosage

Atenolol is fairly safe when taken in deliberate self-poisoning. Amounts of Atenolol up to 5.6 g have been ingested with uneventful recovery. No specific therapy is required but excessive bradycardia can be treated if necessary with atropine 1-2 mg intravenously or with a  $\beta$ -agonist such as isoprenaline 25 mg initially or ciprenaline 0.5 mg given by slow intravenous injection. Glucagon is effective in reversing the negative inotropic effects.

## Storage

Keep out of reach of children. Store in a dry place, below 25°C temperature and protected from light.

## Packaging

**Betasec® 50 mg Tablet:** Each carton contains 10X10 tablets in blister strips.

008-02



Manufactured by  
**Opsonin Pharma Limited**  
Rupatali, Barishal, Bangladesh.  
® Registered Trade Mark.