

# Lopo Plus

Losartan Potassium USP + Hydrochlorothiazide BP

## PRESENTATION

Lopo Plus Tablet: Each film coated tablet contains Losartan Potassium USP 50 mg + Hydrochlorothiazide BP 12.5 mg.

## PHARMACOLOGY

Angiotensin II (formed from angiotensin I in a reaction catalyzed by angiotensin converting enzyme) is a potent vasoconstrictor, the primary vasoactive hormone of the renin-angiotensin system and an important component in the pathophysiology of hypertension. It also stimulates aldosterone secretion by the adrenal cortex. Losartan and its principle active metabolite block the vasoconstrictor and aldosterone secreting effects of angiotensin II by selectively blocking the binding of angiotensin II to the AT1 receptor found in many tissues, (e.g. vascular smooth muscle, adrenal gland). In vitro binding studies indicate that Losartan is a reversible, competitive inhibitor of the AT1 receptor. Neither Losartan nor its active metabolite inhibits ACE (kinase II, the enzyme that converts angiotensin I to angiotensin II and degrades bradykinin); nor do they bind to or block other hormone receptors or ion channels known to be important in cardiovascular regulation. Hydrochlorothiazide is a thiazide diuretic. Thiazides affect the renal tubular mechanisms of electrolyte reabsorption, directly increasing excretion of sodium and chloride in approximately equivalent amounts. Indirectly, the diuretic action of hydrochlorothiazide reduces plasma volume, with consequent increase in plasma renin activity, in aldosterone secretion, in urinary potassium loss and decreases in serum potassium. The renin-aldosterone link is mediated by angiotensin II, so coadministration of an angiotensin II receptor antagonist tends to reverse the potassium loss associated with these diuretics.

## INDICATIONS

Lopo Plus is indicated for the treatment of hypertension. It is also indicated to reduce the risk of stroke in patients with hypertension and left ventricular hypertrophy.

## DOSAGE & ADMINISTRATION

The usual starting dose is Lopo Plus 50/12.5 one tablet once daily. More than two tablets of Lopo Plus 50/12.5 once daily is not recommended. Maximum antihypertensive effect is attained about three weeks after initiation of therapy. Patients whose blood pressure is not adequately controlled with losartan or hydrochlorothiazide monotherapy, may be switched to Lopo Plus 50/12.5 once daily. If blood pressure remains uncontrolled after about three weeks of therapy, the dose may be increased to two tablets of Lopo Plus 50/12.5 once daily. Patients whose blood pressure is not adequately controlled with losartan 100 mg monotherapy, may be switched to Lopo Plus 50/12.5 twice daily. If blood pressure remains uncontrolled after about three weeks of therapy, the dose may be increased to 2 tablets of Lopo Plus 50/12.5 once daily.

## CONTRAINDICATIONS

This combination is contraindicated in patients who are hypersensitive to any component of this product. Because of the hydrochlorothiazide component, this product is contraindicated in patients with anuria or hypersensitivity to other sulfonamide-derived drugs.

## SIDE EFFECTS

Abdominal pain, Edema/swelling, Palpitation, Back pain, Dizziness, Cough, Sinusitis, Upper respiratory tract infection, Rash etc.

## ACUTE OVERDOSE

Losartan Potassium: Limited data are available in regard to overdosage in humans. The most likely manifestation of overdosage would be hypotension and tachycardia; bradycardia could occur from

parasympathetic (vagal) stimulation. If symptomatic hypotension occur, supportive treatment should be instituted. Neither losartan nor its active metabolite can be removed by hemodialysis.

Hydrochlorothiazide: The most common signs and symptoms observed are those caused by electrolyte depletion (hypokalemia, hypochloremia, hyponatremia) and dehydration resulting from excessive diuresis. If digitalis has also been administered, hypokalemia may accentuate cardiac arrhythmias. The degree to which hydrochlorothiazide is removed by hemodialysis has not been established.

### **PRECAUTIONS**

Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals. All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy. Because losartan decreases uric acid, losartan in combination with hydrochlorothiazide attenuates the diuretic-induced hyperuricemia. In diabetic patients, dosage adjustments of insulin or oral hypoglycemic agents may be required. Hyperglycemia may occur with thiazide diuretics. Thus latent diabetes mellitus may become manifest during thiazide therapy.

### **USE IN PREGNANCY & LACTATION**

It is not known whether losartan is excreted in human milk, but significant levels of losartan and its active metabolite were shown to be present in rat milk. Thiazides appear in human milk. Because of the potential for adverse effects on the nursing infant, a decision should be made whether to discontinue nursing or discontinue the drug, taking into account the importance of the drug to the mother.

### **DRUG INTERACTIONS**

Losartan potassium: There is no pharmacokinetic interaction between losartan and hydrochlorothiazide. As with other drugs that block angiotensin II or its effects, concomitant use of potassium-sparing diuretics (e.g., spironolactone, triamterene, amiloride), potassium supplements or salt substitutes containing potassium may lead to increases in serum potassium. Hydrochlorothiazide: When administered concurrently the following drugs may interact with thiazide diuretics: Alcohol, barbiturates or narcotics: potentiation of orthostatic hypotension may occur. Antidiabetic drugs (oral agents and insulin): dosage adjustment of the antidiabetic drug may be required. Other antihypertensive drugs: Additive effect or potentiation. Cholestyramine and colestipol resins: Absorption of hydrochlorothiazide is impaired in the presence of anionic exchange resins.

### **USE IN PAEDIATRIC PATIENTS**

The safety and effectiveness in paediatric patients have not been established.

### **STORAGE CONDITION**

Store in a dry place, at below 30° C. Protect from light and moisture. Keep out of the reach of children.

### **COMMERCIAL PACK**

Lopo Plus Tablet: Each box containing 30 tablets in 3 x 10's blister strip

Manufactured by



For further query on the use of this medicine, consult to a registered Doctor or Pharmacist.