

*Only for the use of Medical Professionals*

## **Probis Plus®**

Bisoprolol & Hydrochlorothiazide

### **Description**

**Probis Plus®** is a combination of two antihypertensive agents, Bisoprolol fumarate and Hydrochlorothiazide. Bisoprolol is a  $\beta_1$  selective (cardioselective) adrenoceptor blocking agent and Hydrochlorothiazide is a benzothiadiazine diuretic.

### **Indications**

**Probis Plus®** is indicated for the management of hypertension.

### **Dosage and administration**

Bisoprolol is an effective treatment of hypertension in once daily doses of 2.5 to 40 mg, while Hydrochlorothiazide is effective in doses of 12.5 to 50 mg. In clinical trials of Bisoprolol/Hydrochlorothiazide combination therapy using Bisoprolol doses of 2.5 to 20 mg and Hydrochlorothiazide doses of 6.25 to 25 mg, the antihypertensive effects increased with increasing doses of either component.

#### *Initial Therapy*

Antihypertensive therapy may be initiated with the lowest dose of this combination, one 2.5/6.25 mg tablet once daily. Subsequent titration (14 day intervals) may be carried out up to the maximum recommended dose 20/12.5 mg once daily, as appropriate.

#### *Replacement Therapy*

The combination may be substituted for the titrated individual components.

#### *Geriatric Patients*

Dosage adjustment on the basis of age is not usually necessary, unless there is also significant renal or hepatic dysfunction

### **Use in pregnancy & lactation**

Pregnancy category C. There are no adequate and well-controlled studies in pregnant women. This combination should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Small amounts of this combination have been detected in the milk of lactating rats. It is not known whether this drug is excreted in human milk. Therefore caution should be exercised when this combination is administered to nursing women.

### **Side effects**

Generally this combination is well tolerated. Most side effects have been mild and transient. The most common Side effects which may occur: fatigue, dizziness, headache, bradycardia,

arrhythmia, peripheral ischemia, chest pain, palpitations, rhythm disturbances, cold extremities, claudication, orthostatic hypotension, diarrhoea, constipation, nausea, dyspepsia, rhinitis & pharyngitis.

### **Precautions**

Hyperuricemia or acute gout may be precipitated in certain patients receiving thiazide diuretics. Warning signs or symptoms of fluid and electrolyte imbalance include dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia and gastrointestinal disturbances such as nausea and vomiting. Hypokalemia may develop.

If withdrawal of this combination therapy is planned, it should be achieved gradually over a period of about 2 weeks. Patients should be carefully observed.

### **Contraindications**

Bisoprolol fumarate & Hydrochlorothiazide combination is contraindicated in patients with cardiogenic shock, overt cardiac failure, second or third degree AV block, marked sinus bradycardia, anuria. It is also contraindicated in hypersensitivity to either component of this product or to other sulfonamide-derived drugs.

### **Drug interaction**

Bisoprolol fumarate & Hydrochlorothiazide combination may potentiate the action of other antihypertensive agents used concomitantly. This combination should not be combined with other beta-blocking agents. Patients receiving catecholamine-depleting drugs, such as reserpine or guanethidine, should be closely monitored because the added beta-adrenergic blocking action of bisoprolol fumarate may produce excessive reduction of sympathetic activity. In patients receiving concurrent therapy with clonidine, if therapy is to be discontinued, it is suggested that Bisoprolol fumarate & Hydrochlorothiazide combination be discontinued for several days before the withdrawal of clonidine.

Bisoprolol fumarate & Hydrochlorothiazide combination should be used with caution when myocardial depressants or inhibitors of AV conduction, such as certain calcium antagonists (particularly of the phenylalkylamine [verapamil] and benzothiazepine [diltiazem] classes), or antiarrhythmic agents, such as disopyramide, are used concurrently.

Both digitalis glycosides and beta-blockers slow atrioventricular conduction and decrease heart rate. Concomitant use can increase the risk of bradycardia.

### **Overdose**

The most frequently observed signs expected with overdosage of a  $\beta$ -blocker are bradycardia and hypotension. Lethargy is also common, and with severe overdoses, delirium, coma, convulsions, and respiratory arrest have been reported to occur. Congestive

heart failure, bronchospasm, and hypoglycemia may occur, particularly in patients with underlying conditions. With thiazide diuretics, acute intoxication is rare.

If overdosage of Bisoprolol fumarate & hydrochlorothiazide combination is suspected, therapy should be discontinued and the patient observed closely. Treatment is symptomatic and supportive; there is no specific antidote. Limited data suggest bisoprolol fumarate is not dialyzable; similarly, there is no indication that hydrochlorothiazide is dialyzable. Suggested general measures include induction of emesis and/or gastric lavage, administration of activated charcoal, respiratory support, correction of fluid and electrolyte imbalance, and treatment of convulsions.

#### **Pharmaceutical precautions**

Store in a cool (below 30°C) & dry place protected from light. Keep away from the reach of children. **Presentation**

**Probis Plus® 2.5/6.25 tablet:** Each tablet contains Bisoprolol fumarate USP 2.5mg & Hydrochlorothiazide BP 6.25mg

**Probis Plus® 5/6.25 tablet:** Each tablet contains Bisoprolol fumarate USP 5mg & Hydrochlorothiazide BP 6.25mg

#### **Package quantities**

**Probis Plus® 2.5/6.25 tablet:** Cartons of 30 tablets in Alu-Alu blister.

**Probis Plus® 5/6.25 tablet:** Cartons of 30 tablets in Alu-Alu blister.

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