KOFAREST-PD SYRUP

COMPOSITION

Each 5 ml of **KOFAREST-PD Syrup** contains:	
Terbutaline sulphate	1.25 mg
Ambroxol Hydrochloride	15 mg
Guaiphenesin	50 mg
Menthol	2 mg

PHARMACOLOGY

Terbutaline is a selective β-2-adrenoceptor agonist. At therapeutic doses it acts on the β-2-adrenoreceptors of bronchial muscle with little or no action on the α1-adrenoreceptors of cardiac muscle. Terbutaline stimulates the production of intracellular cyclic-AMP, enhancing the binding of intracellular calcium to the cell membrane and endoplasmic reticulum, resulting in bronchodilation. It also enhances mucociliary clearance.

Activation of the β-2-adrenoreceptors opens ATPase channels and drives potassium from the extracellular to the intracellular space. This both decreases extracellular hyperkalemia and increases intracellular potassium, so decreasing the chance of arrhythmia.

Ambroxol hydrochloride is a mucolytic agent, which liquefies thick, tenacious sputum. Ambroxol dissolves mucopolysaccharide fibres and reduces viscosity of sputum. It also improves mucociliary clearance of secretions.

Guaiphenesin is an expectorant. It increases the output of sputum and bronchial secretions by reducing adhesiveness and surface tension. By increasing the volume of bronchial secretions, it reduces the viscosity of tenacious sputum. The increased flow of less viscid secretions also promotes ciliary action.

Menthol has a cooling effect on the throat. It has been suggested that the benefits of menthol may be due to an effect on calcium channels of sensory nerves.

KOFAREST-PD Syrup is an ideal combination. The ingredients are well absorbed after oral administration and provide prompt relief.

INDICATIONS

KOFAREST-PD Syrup is indicated for the treatment of productive cough when associated with bronchospasm in conditions such as bronchitis, bronchial asthma, chronic obstructive pulmonary disease (COPD), bronchiectasis and emphysema.

CONTRAINDICATIONS

KOFAREST-PD Syrup is contraindicated in patients with hypersensitivity to any ingredient of the formulation.

PRECAUTIONS

While treating cough as a symptom, it is important to make every effort to determine and treat appropriately the underlying cause, such as a specific infection.
Caution should be observed while prescribing **KOFAREST-PD** to children with hypertension, cardiovascular disease, uncontrolled juvenile diabetes mellitus, hyperthyroidism, seizures or in patients who are unusually hypersensitive to sympathomimetic amines.

Since mucolytics, such as ambroxol, may disrupt the gastric mucosal barrier, **KOFAREST-PD Syrup** should be used with care in patients with a history of peptic ulceration.

Pregnancy & Lactation

Safety of **KOFAREST-PD** has not been studied in pregnancy and lactation in humans. Therefore, probable benefits should be weighed against possible risks, before prescribing.

DRUG INTERACTIONS

Hypokalemia with high doses of ß2 -agonists may result in increased susceptibility to digitalis induced cardiac arrhythmias. Hypokalemia may be enhanced by concomitant administration of aminophylline or other xanthines, corticosteroids or by diuretic therapy.

Other sympathomimetic bronchodilators or epinephrine should not be used concomitantly with terbutaline, since their combined effect on the cardiovascular system may be deleterious to the patient.

Terbutaline should be administered with caution in patients being treated with monoamine oxidase (MAO) inhibitors or tricyclic antidepressants, since the action of terbutaline on the vascular system may be potentiated.

ADVERSE REACTIONS

The adverse reactions to terbutaline are similar in nature to those of other sympathomimetic agents and include nervousness and tremor. The frequency of these side effects appears to diminish with continued therapy. Other commonly reported reactions include increased heart rate, palpitations, dizziness, headache, drowsiness, vomiting, nausea, sweating and muscle cramps. These reactions are generally transient and usually do not require treatment.

With ambroxol gastrointestinal side effects may occur occasionally and a transient rise in serum aminotransferase values has been reported.

Gastrointestinal discomfort has occasionally been reported with Guaiphenesin.

DOSAGE & ADMINISTRATION

The usual recommended dose of **KOFAREST-PD Syrup** in children is as under:

- 6-12 years age: 1-2 tsp bid or t.i.d.
- 4-6 years age: 1 tsp bid or t.i.d.
- 2-4 years age: ½ tsp bid or t.i.d.

Note: Terbutaline dose: 0.075 mg/kg body wt. t.i.d.

PRESENTATION

KOFAREST-PD Syrup is available in a bottle of 60 ml.