Alvigo, or to cetirizine. Observed reactions range from urticaria to anaphylaxis.

- Patients with end-stage renal disease (CLCR < 10 mL/min) and patients undergoing hemodialysis.
- Pediatric patients 6 months to 11 years of age with impaired renal function.

OVERDOSE

Symptoms of overdose may include drowsiness in adults and initially agitation and restlessness, followed by drowsiness in children. There is no known specific antidote to levocetirizine. Should overdose occur, symptomatic or supportive treatment is recommended. Levocetirizine is not effectively removed by dialysis, and dialysis will be ineffective unless a dialyzable agent has been concomitantly ingested.

PRESENTATION

Alvigo 5mg Tablets are supplied in Alu Alu Blister pack of 2 X10's.
Alvigo Syrup are supplied in 60 ml bottle.
Alvigo Syrup are supplied in 120 ml bottle.

STORAGE

Store below 30°C in a dry place, protect from light.
To be dispensed on the prescription of a registered medical practitioner only.
Keep out of the reach of children.

خوراک: ڈاکٹر کی ہدایت کے مطابق استعمال کریں۔
دوا کو ۳۰ ڈگری سینٹی گریڈ سے کم درجہ حرارت پر خشک جگہ پر رکھیں، روشنی سے بچائیں۔
صرف رجسٹرڈ ڈاکٹر کے نسخے پر فروخت کریں۔
بچوں کی پہنچ سے دور رکھیں۔

Manufactured by:
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QAR No. AW21-0898

Alvigo

الویگو

(Levocetirizine Dihydrochloride)

COMPOSITION

Each film coated tablet contains:
Levocetirizine dihydrochloride ..... 5 mg
Product Complies U.S.P. Specs.
Each 5 ml contains:
Levocetirizine dihydrochloride ..... 2.5 mg
Product Complies Platinum Specs.

MECHANISM OF ACTION

Levocetirizine dihydrochloride is a third generation non-sedative antihistamine, developed from the second generation antihistamine cetirizine.
Levocetirizine, the active enantiomer of cetirizine. is an anti-histamine; its principal effects are mediated via selective inhibition of H1 receptors. The antihistaminic activity of levocetirizine has been documented in a variety of animal and human models.
ECGs did not show relevant effects of levocetirizine on OT interval.

PHARMACOKINETICS

Absorption: Levocetirizine is rapidly and extensively absorbed following oral administration. In adults, peak plasma concentrations are achieved 0.9 hour after administration of the oral tablet. Steady state achieve after 2 days. Food had no effect on the extent of exposure (AUC) ot the levocetirizine tablet, but Tmax was delayed by about 1.25 hours and Cmax was decreased by about 36% after administration with a high fat meal; therefore, levocetirizine can be administered with or without food.
A dose of 5 mg (10 mL) levocetirizine syrup is bioequivalent to a 5 mg dose of levocetirizine tablets. Following oral administration of a 5 mg dose of levocetirizine syrup to healthy adult subjects, the mean peak plasma concentrations were achieved approximately 0.5 hour post-dose.
Metabolism: The extent of metabolism of levocetirizine in humans is less than 14% of the dose and therefore differences resulting from genetic polymorphism or concomitant intake of hepatic drug metabolizing enzyme inhibitors are expected to be negligible.
Elimination: The plasma half-life in adult healthy subjects was about 8 to 9 hours after administration of oral tablets and oral syrup.The major route of excretion of levocetirizine and its metabolites is via urine, accounting for a mean of 85.4% of the dose. Excretion via feces accounts for only 12.996 of the dose. Levocetirizine is excreted both by glomerular filtration and active tubular secretion.
Renal Impairment: The total body clearance of levocetirizine after oral dosing was correlated to the creatinineclearance and was progressively reduced based on severity of renal impairment. The amount of levocetirizine removed during a standard 4-hour hemodialysis procedure was < 10%.
The dosage of levocetirizine should be reduced in patients with mild renal impairment. Both the dosage and frequency of administration should be reduced in patients with moderate or severe renal impairment.
In end-stage renal disease patients (CLCR < 10 mL/min) levocetirizine is contraindicated.
Hepatic Impairment: Levocetirizine has not been studied in patients with hepatic impairment. The non-renal clearance (indicative of hepatic contribution) was found to

constitute about 28% of the total body clearance in healthy adult subjects after oral administration.
As levocetirizine is mainly excreted unchanged by the kidney, it is unlikely that the clearance of levocetirizine is significantly decreased in patients with solely hepatic impairment.

INDICATIONS

Seasonal Allergic Rhinitis: Alvigo is indicated for the relief of symptoms associated with seasonal allergic rhinitis in adults and children 2 years of age and older.
Perennial Allergic Rhinitis: Alvigo is indicated for the relief of symptoms associated with perennial allergic rhinitis in adults and children 6 months of age and older.
Chronic Idiopathic Urticaria: Alvigo is indicated for the treatment of the uncomplicated skin manifestations of chronic idiopathic urticaria in adults and children 6 months of age and older.

DOSAGE and ADMINISTRATION

Alvigo can be taken without regard to food consumption.
Adults and Children 12 Years of Age and Older: The recommended dose of **Alvigo** is 5 mg (1 tablet or 2 teaspoons [10 mL] syrup) once daily in the evening. Some patients may be adequately controlled by 2.5 mg (1/2 tablet or1 teaspoon [5 mL] syrup) once daily in the evening.
Children 6 to 11 Years of Age: The recommended dose of **Alvigo** is 2.5 mg (1/2 tablet or1 teaspoon [5 mL] syrup) once daily in the evening. The 2.5 mg dose should not be exceeded because the systemic exposure with 5 mg is approximately twice that of adults.
Children 6 months to 5 Years of Age: The recommended initial dose of **Alvigo** is 1.25 mg (1/2 teaspoon [2.5mL syrup) once daily in the evening. The 1.25 mg once daily dose should not be exceeded based on comparable exposure to adults receiving 5 mg.
Dose Adjustment for Renal and Hepatic Impairment:
In adults and children 12 years of age and older with:

- Mild renal impairment (creatinine clearance [CLCR] = 50-80 mL/min): a dose of 2.5 mg once daily is recommended.
- Moderate renal impairment (CLCR = 30-50 mL/min): a dose of 2.5 mg once every other day is recommended.
- Severe renal impairment (CLCR = 10-30 mL/min): a dose of 2.5 mg twice weekly (administered once every 3-4 days) is recommended.
- End-stage renal disease patients (CLCR<10 mL/min) and patients undergoing hemodialysis should not receive Alvigo.

Patients with hepatic impairment: No dose adjustment is needed in patients with solely hepatic impairment.
In patients with hepatic impairment and renal impairment, adjustment of the dose is recommended.

UNDESIRABLE EFFECTS

Adults and Adolescents 12 years of Age and Older: Adverse reactions that were reported in greater than or equal to 2% of subjects were somnolence, nasopharyngitis, fatigue, dry mouth, and pharyngitis, and most were mild to moderate in intensity.
Pediatric Patients 6 to 12 Years of Age: Adverse reactions that were reported in greater than or equal to 2% of subjects were pyrexia, cough, somnolence and epistaxis.
Pediatric Patients 1 to 5 Years of Age: Adverse reactions that were reported in greater than or equal to 2% of subjects were pyrexia, diarrhea, vomitting and otitis media.
Pediatric Patients 6 to 11 Months of Age: Adverse reactions that were reported in greater than or equal to 3% of subjects were diarrhea and constipation.
Long-Term Clinical Trials Experience: In two controlled clinical trials, 428 patients aged 12 years and older were treated with levocetirizine 5 mg once daily for 4 or 6 months. The patient characteristics and the safety profile were similar to that seen in the short-term studies. Ten (2.3%) patients discontinued because of somnolence, fatigue or asthenia compared to 2 (< t%) in the placebo group.
There are no long term clinical trials in children below 12 years of age with allergic rhinitis or chronic idiopathic urticaria.
Laboratory Test Abnormalities: Elevations of blood bilirubin and transaminases were reported in < 1% of patients in the clinical trials. The elevations were transient and did not lead to discontinuation in any patient.

DRUG INTERACTIONS

In vitro data indicate that levocetirizine is unlikely to produce pharmacokinetic interactions through inhibition or induction of liver drug-metabolizing enzymes. No in vivo drug-drug interaction studies have been performed with levocetirizine. Drug interaction studies have been performed with racemic cetirizine.
Antipyrine, Azithromycin, Cimetidine, Erythromycin, Ketoconazole, Theophylline, and Pseudoephedrine Pharmacokinetic interaction studies performed with racemic cetirizine demonstrated that cetirizine did not interact with antipyrine, pseudoephedrine, erythromycin, azithromycin, ketoconazole, and cimetidine. There was a small decrease (~16%) in the clearance of cetirizine caused by a 400 mg dose of theophylline. It ispossible that higher theophylline doses could have a greater effect.
Ritonavir: Ritonavir increased the plasma AUC of cetirizine by about 42% accompanied by an increase in half-life (53%) and a decrease in clearance (2996) of cetirizine. The disposition of ritonavir was not altered by concomitant cetirizine administration.

PRECAUTIONS

Somnolence: In clinical trials the occurrence of somnolence, fatigue. and asthenia has been reported in some patients under therapy with levocetirizine. Patients should be cautioned against engaging in hazardous occupations requiring complete mental alertness, and motor coordination such as operating machinery or driving a motor vehicle. Concurrent use of levocetirizine with alcohol or other central nervous system depressants should be avoided because additional reductions in alertness and additional impairment of central nervous system performance may occur.
Urinary Retention: Urinary retention has been reported post-marketing with levocetirizine. It should be used with caution in patients with predisposing factors of urinary retention (eg. spinal cord lesion, prostatic hyperplasia). Discontinue if urinary retention occurs.
Pregnancy: Pregnancy Category B: There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, levocetirizine should be used during pregnancy only if clearly needed.
Nursing Mothers: Because levocetirizine is expected to be excreted in human milk. use of levocetirizine in nursing mothers is not recommended.
Geriatric Use: Clinical studies of levocetirizine for each approved indication did not include sufficient numbers of patients aged 65 years and older to determine whether they respond differently than younger patients. Other reported clinical experience has not identified differences in responses between the elderly and younger patients. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range reflecting the greater frequency of decreased hepatic, renal, or cardiac function and of concomitant disease or other drug therapy.

CONTRAINDICATIONS

- Patients with known hypersensitivity to levocetirizine or any of the ingredients of