Decancit SR tablets:

5 mg Cetirizine hydrochloride + 120 mg Pseudoephedrine hydrochloride

DRUG DESCRIPTION: **Decancit SR tablets** (cetirizine hydrochloride 5 mg and pseudoephedrine hydrochloride 120 mg) Extended Release Tablets for oral administration contain 5 mg of cetirizine hydrochloride for immediate release and 120 mg of pseudoephedrine hydrochloride for extended release. Cetirizine hydrochloride, one of the two active components of **Decancit SR tablets**, is an orally active and selective H1-receptor antagonist. The chemical name is (+/-)- [2-[4-[(4-chlorophenyl)phenylmethyl]-1-piperazinyl] ethoxy] acetic acid, dihydrochloride. Cetirizine hydrochloride is a racemic compound with an empirical formula of $C_{21}H_{25}ClN_2O_3 \cdot 2HCl$. The molecular weight is 461.82. Cetirizine hydrochloride is a white, crystalline powder and is water-soluble. Pseudoephedrine hydrochloride, the other active ingredient of **Decancit SR tablets**, is an adrenergic (vasoconstrictor) agent with the chemical name (1S,2S)-2-methylamino-1-phenyl-1-propanol hydrochloride. The molecular weight is 201.70. The molecular formula is $C_{10}H_{15}NO \cdot HCl$. Pseudoephedrine hydrochloride occurs as fine, white to off-white crystals or powder, having a faint characteristic odor. It is very soluble in water, freely soluble in alcohol, and sparingly soluble in chloroform.

Active Ingredients:

Active ingredient (in each extended release tablet).	Purpose
Cetirizine HCl 5 mg.	Antihistamine
Pseudoephedrine HCl 120 mg.	Nasal decongestant

Inactive Ingredients: Lactose monohydrate, dibasic calcium phosphate, methocel K-15, povidon K-90, anhydrous colloidal silica, magnesium stearate ,methocel E-5, ethyl cellulose N-50, PEG 6000, talc, titanium dioxide.

INDICATIONS: **Decancit SR tablets** should be administered when both the antihistaminic properties of cetirizine hydrochloride and the nasal decongestant properties of pseudoephedrine hydrochloride are desired.
Decancit SR tablets are indicated for the relief of nasal and non-nasal symptoms associated with seasonal or perennial allergic rhinitis in adults and children 12 years of age and older.

DOSAGE AND ADMINISTRATION: Do not break or chew tablet; swallow tablet whole. Adults and Children 12 Years and over: take 1 tablet every 12 hours; do not take more than 2 tablets in 24 hours

Adults 65 years and over: Ask a doctor.

Children under 12 years of age: Ask a doctor.

Consumers with liver or kidney disease: Ask a doctor.

• **Decancit SR tablets** may be given with or without food.

HOW SUPPLIED: **Decancit SR tablets:** are white, round, biconvex, tablets containing 5 mg cetirizine hydrochloride and 120 mg pseudoephedrine hydrochloride.

SIDE EFFECTS: ***Autonomic Nervous System:*** anorexia, flushing, increased salivation, urinary retention.
Cardiovascular: cardiac failure, hypertension, palpitation, tachycardia.
Central and Peripheral Nervous Systems: abnormal coordination, ataxia, confusion, dysphonia, hyperesthesia, hyperkinesia, hypertonia, hypoesthesia, leg cramps, migraine, myelitis, paralysis, paresthesia, ptosis, syncope, tremor, twitching, vertigo, visual field defect.
Gastrointestinal: abnormal hepatic function, aggravated tooth caries, constipation, dyspepsia, eructation, flatulence, gastritis, hemorrhoids, increased appetite, melena, rectal hemorrhage, stomatitis including ulcerative stomatitis, tongue discoloration, tongue edema.
Genitourinary: cystitis, dysuria, hematuria, micturition frequency, polyuria, urinary incontinence, urinary tract infection.
Hearing and Vestibular: deafness, earache, ototoxicity, tinnitus.
Metabolic/Nutritional: dehydration, diabetes mellitus, thirst.
Musculoskeletal: arthralgia, arthritis, arthrosis, muscle weakness, myalgia.
Psychiatric: abnormal thinking, agitation, amnesia, anxiety, decreased libido, depersonalization, depression, emotional lability, euphoria, impaired concentration, insomnia, nervousness, paroniria, sleep disorder.
Respiratory System: bronchitis, dyspnea, hyperventilation, increased sputum, pneumonia, respiratory disorder, rhinitis, sinusitis, upper respiratory tract infection.
Reproductive: dysmenorrhea, female breast pain, intermenstrual bleeding, leukorrhea, menorrhagia, vaginitis.
Reticuloendothelial: lymphadenopathy.
Skin: acne, alopecia, angioedema, bullous eruption, dermatitis, dry skin, eczema, erythematous rash, furunculosis, hyperkeratosis, hypertrichosis, increased sweating, maculopapular rash, photosensitivity reaction, photosensitivity toxic reaction, pruritus, purpura, rash, seborrhea, skin disorder, skin nodule, urticaria.
Special Senses: parosmia, taste loss, taste perversion.
Vision: blindness, conjunctivitis, eye pain, glaucoma, loss of accommodation, ocular hemorrhage, xerophthalmia.
Body as a Whole: accidental injury, asthenia, back pain, chest pain, enlarged abdomen, face edema, fever, generalized edema, hot flashes, increased weight, leg edema, malaise, nasal polyp, pain, pallor, periorbital edema, peripheral edema, rigors. Occasional instances of transient, reversible hepatic transaminase elevations have occurred during cetirizine therapy. Hepatitis with significant transaminase elevation and elevated bilirubin in association with the use of cetirizine has been reported. In foreign marketing experience or experience in the post market period, the following additional rare, but potentially severe adverse events have been reported: anaphylaxis, cholestasis, glomerulonephritis, hemolytic anemia, hepatitis, orofacial dyskinesia, severe hypotension, stillbirth, thrombocytopenia, aggressive reaction and convulsions.

PSEUDOEPHEDRINE HYDROCHLORIDE: Pseudoephedrine hydrochloride may cause mild CNS stimulation in hypersensitive patients. Nervousness, excitability, restlessness, dizziness, weakness, or insomnia may occur. Headache, nausea, drowsiness, tachycardia, palpitation, pressor activity, and cardiac arrhythmias have been reported. Sympathomimetic drugs have also been associated with other untoward effects such as fear, anxiety, tenseness, tremor, hallucinations, seizures, pallor, respiratory difficulty, dysuria, and cardiovascular collapse.

DRUG INTERACTIONS: Cetirizine hydrochloride and pseudoephedrine hydrochloride do not influence the pharmacokinetics of each other when administered concomitantly. No clinically significant drug interactions have been found with cetirizine and theophylline at a low dose, azithromycin, ketoconazole, or erythromycin. There was a small decrease in the clearance of cetirizine caused by a 400 mg dose of theophylline; it is possible that larger theophylline doses could have a greater effect.
Due to the pseudoephedrine component, **Decancit SR tablets** are contraindicated in patients taking monoamine oxidase (MAO) inhibitors and for 14 days after stopping use of an MAO inhibitor. Concomitant use with antihypertensive drugs that interfere with sympathetic activity (e.g., methyldopa, mecamylamine, and reserpine) may reduce their antihypertensive effects. Increased ectopic pacemaker activity can occur when pseudoephedrine is used concomitantly with digitalis. Care should be taken in the administration of **Decancit SR tablets** concomitantly with other sympathomimetic amines because combined effects on the cardiovascular system may be harmful to the patient.

WARNINGS: Sympathomimetic amines should be used judiciously and sparingly in patients with hypertension, diabetes mellitus, ischemic heart disease, increased intraocular pressure, hyperthyroidism, renal impairment, or prostatic hypertrophy. Sympathomimetic amines may produce central nervous system stimulation with convulsions or cardiovascular collapse with accompanying hypotension. The elderly are more likely to have adverse reactions to sympathomimetic amines.

PRECAUTIONS: Due to its pseudoephedrine component, **Decancit SR tablets** should be used with caution in patients with hypertension, diabetes mellitus, ischemic heart disease, increased intraocular pressure, hyperthyroidism, renal impairment, or prostatic hypertrophy. Patients with decreased renal function should be given a lower initial dose (one tablet per day) because they have reduced elimination of cetirizine and pseudoephedrine.
Activities Requiring Mental Alertness: In clinical trials, the occurrence of somnolence has been reported in some patients taking cetirizine or **Decancit SR tablets;** due caution should therefore be exercised when driving a car or operating potentially dangerous machinery after taking **Decancit SR tablets**. Concurrent use of **Decancit SR tablets** with alcohol or other CNS depressants should be avoided because additional reductions in alertness and additional impairment of CNS performance may occur.
Because cetirizine and pseudoephedrine are excreted in milk , use of **Decancit SR tablets** in nursing mothers is not recommended.
Pregnancy Category C: **Decancit SR tablets:** Tablets should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.
Nursing Mothers: Because cetirizine and pseudoephedrine are excreted in milk, use of **Decancit SR tablets** in nursing mothers is not recommended.
Pediatric Use: Decancit SR tablets contain 120 mg of pseudoephedrine hydrochloride in an extended release formulation. This dose of pseudoephedrine exceeds the recommended dose for pediatric patients under 12 years of age. Therefore, clinical trials have not been conducted in patients under 12 years of age.

OVERDOSE: Information regarding acute overdosage is limited to experience with cetirizine alone and the marketing history of pseudoephedrine hydrochloride. Overdosage has been reported with cetirizine. In one adult patient who took 150 mg of cetirizine, the patient was somnolent but did not display any other clinical signs or abnormal blood chemistry or hematology results. In an 18-month-old pediatric patient who took an overdose of cetirizine (approximately 180 mg), restlessness and irritability were observed initially; this was followed by drowsiness. Should overdose occur, treatment should be symptomatic or supportive, taking into account any concomitantly ingested medications. There is no known specific antidote to cetirizine. Cetirizine is not effectively removed by dialysis, and dialysis will be ineffective unless a dialyzable agent has been concomitantly ingested. The acute minimal lethal oral doses in mice and rats were 237 and 562 mg/kg, respectively (approximately 95 and 460 times the maximum recommended daily dose in adults on a mg/m^2 basis). In rodents, the target of acute toxicity was the central nervous system, and the target of multiple-dose toxicity was the liver. In large doses, sympathomimetics may give rise to giddiness, headache, nausea, vomiting, sweating, thirst, tachycardia, precordial pain, palpitations, difficulty in micturition, muscular weakness and tenseness, anxiety, restlessness, and insomnia. Many patients can present a toxic psychosis with delusions and hallucinations. Some may develop cardiac arrhythmias, circulatory collapse, convulsions, coma and respiratory failure.

CONTRAINDICATIONS: **Decancit SR tablets** are contraindicated in patients with a known hypersensitivity to any of its ingredients or to hydroxyzine.
Due to its pseudoephedrine component, **Decancit SR tablets** are contraindicated in patients with narrow-angle glaucoma or urinary retention, and in patients receiving monoamine oxidase (MAO) inhibitor therapy or within fourteen (14) days of stopping such treatment (see PRECAUTIONS, Drug Interactions section). It is also contraindicated in patients with severe hypertension, or severe coronary artery disease, and in those who have shown hypersensitivity or idiosyncrasy to its components, to adrenergic agents, or to other drugs of similar chemical structures. Manifestations of patient idiosyncrasy to adrenergic agents include insomnia, dizziness, weakness, tremor, or arrhythmias.

CLINICAL PHARMACOLOGY: ***Mechanisms of Action:*** Cetirizine, a metabolite of hydroxyzine, is an antihistamine; its principal effects are mediated via selective inhibition of H1 receptors. The antihistaminic activity of cetirizine has been clearly documented in a variety of animal and human models. In vivo and Ex vivo animal models have shown negligible anticholinergic and antiserotonergic activity. In clinical trials, however, dry mouth was more common with cetirizine than with placebo. In vitro receptor binding studies have shown no measurable affinity for other than H1 receptors. Autoradiographic studies with radiolabeled cetirizine in the rat have shown negligible penetration into the brain. Ex vivo experiments in the mouse have shown that systemically administered cetirizine does not significantly occupy cerebral H1 receptors. Pseudoephedrine hydrochloride is an orally active sympathomimetic amine and exerts a decongestant action on the nasal mucosa. Pseudoephedrine hydrochloride is recognized as an effective agent for the relief of nasal congestion due to allergic rhinitis. Pseudoephedrine produces peripheral effects similar to those of ephedrine and central effects similar to, but less intense than, amphetamines. It has the potential for excitatory side effects.

PHARMACOKINETICS: ***Absorption:*** The bioavailability of cetirizine hydrochloride and pseudoephedrine hydrochloride from **Decancit SR tablets** is not significantly different from that achieved with separate administration of a cetirizine 5 mg tablet and a pseudoephedrine 120 mg extended release tablets. Co-administration of cetirizine and pseudoephedrine does not significantly affect the bioavailability of either component. Following a single dose of the **Decancit SR tablets**, a mean peak plasma concentration (C_{max}) of 114 ng/mL at a time (Tmax) of 2.2 hours postdose was observed for cetirizine and a mean C_{max} of 309 ng/mL at a T_{max} of 4.4 hours postdose was observed for pseudoephedrine. Food had no significant effect on the extent of cetirizine absorption (AUC), but T_{max} was delayed by 1.8 hours and C_{max} was decreased by 30%. Food had no significant effect on the pharmacokinetics of pseudoephedrine. **Decancit SR tablets** may be given with or without food.
Distribution: The mean plasma protein binding of cetirizine is 93% , independent of concentration in the range of 25-1000 ng/mL, which includes the therapeutic plasma levels observed. The apparent volume of distribution (V/F) of pseudoephedrine has been reported to be 2.6-3.3 L/kg. No plasma protein binding data in humans are available.
Metabolism: Cetirizine is metabolized to a limited extent by oxidative O-dealkylation to a metabolite with negligible antihistaminic activity. The enzyme or enzymes responsible for this metabolism have not been identified. One to seven percent of the pseudoephedrine dose appeared to be metabolized to norpseudoephedrine by N-demethylation after a single dose.
Elimination: After administration of the **Decancit SR tablets**, the mean elimination half-life of cetirizine was 7.9 hours and the mean elimination half-life of pseudoephedrine was 6.0 hours. The pattern of the relative milk/plasma drug concentration profile showed that pseudoephedrine concentrations in milk were 2- to 3-fold higher than those in plasma.

DRUG INTERACTIONS: Pharmacokinetic interaction trials with cetirizine in adults were conducted with pseudoephedrine, antipyrine, ketoconazole, erythromycin and azithromycin. No interactions were observed. In a multiple dose study of theophylline (400 mg once daily for 3 days) and cetirizine (20 mg once daily for 3 days), a 16% decrease in the clearance of cetirizine was observed. The disposition of theophylline was not altered by concomitant cetirizine administration.
Special Populations: Pediatrics: Although cetirizine pharmacokinetics have been studied in children, Decancit SR tablets are not recommended for patients under 12 years of age.
Geriatrics: The decrease in cetirizine clearance in these elderly volunteers may be related to decreased renal function.
The pharmacokinetics of pseudoephedrine have not been adequately studied in geriatric subjects.
Gender: The effect of gender on cetirizine or pseudoephedrine pharmacokinetics has not been adequately studied.
Race: The effect of race on cetirizine or pseudoephedrine pharmacokinetics has not been adequately studied.
Renal Impairment: Moderately impaired patients had a 3-fold increase in half-life and a 70% decrease in clearance compared to normal volunteers. Less than 10% of the administered dose was removed during the single dialysis session. About 55-75% of an administered dose of pseudoephedrine hydrochloride is excreted unchanged in the urine; the remainder is apparently metabolized in the liver. Therefore, pseudoephedrine may accumulate in patients with renal insufficiency. Dosing adjustment is necessary in patients with moderate or severe renal impairment and in patients on dialysis.
Hepatic Impairment: The effect of hepatic impairment on pseudoephedrine pharmacokinetics is unknown. Dosing adjustment may be necessary in patients with hepatic impairment.
Pharmacodynamics: There was no significant increase in QTc with cetirizine alone or in combination with azithromycin.

PACKAGE AND STORAGE: Carton box contains 1,2,3 PVC/Alu each of 10 tablets + insert leaflet. Store in a dry place at temperature not exceeding 30˚ C.

Keep All Medicine Out of Reach of Children

Manufactured by: Apex Pharma - S.A.E - Badr City- Egypt.
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