Isotrin™

Isotretinoin USP

Composition

Isotrin™ 10 : Each capsule contains Isotretinoin USP 10 mg.
Isotrin™ 20 : Each capsule contains Isotretinoin USP 20 mg.

Pharmacology

Isotretinoin produces its effect through altering progress through the cycle, cell differentiation, survival and apoptosis. These actions reduce sebum production, preventing the blockage of pores and growth of acne causing bacteria. Isotretinoin induces apoptosis in sebocytes, leading to a decrease in sebum production. Isotretinoin also reduces the formation of comedones by reducing hyperkeratinization through an unknown mechanism. Isotretinoin does not directly kill bacteria but it does reduce the size of sebum ducts and makes the microenvironment less hospitable to acne causing bacteria. It may also increase immune mechanisms and alter chemotaxis of monocytes to reduce inflammation.

Indication

Isotrin™ is a retinoid indicated for the treatment of severe recalcitrant nodular acne (resistant to adequate courses of standard therapy with systemic antibacterial and topical therapy) in patients 12 years of age and older.

Dosage and Administration

The capsules should be taken with food once or twice daily as per required dose.
Dosing by Body Weight:

Body Weight	Daily Dose (mg)	
Kilograms	0.5 mg/kg	1 mg/kg
40	20	40
50	25	50
60	30	60
70	35	70
80	40	80
90	45	90
100	50	100

Adults including adolescents and the elderly: Isotretinoin therapy should be started at a dose of 0.5 mg/kg daily. For most patients, the dose ranges from 0.5-1.0 mg/kg per day. A treatment course of 15-20 weeks is normally sufficient to achieve remission.
Patients with severe renal insufficiency: In patients with severe renal insufficiency, treatment should be started at a lower dose (e.g. 10 mg/day). The dose should then be increased up to 1 mg/kg/day or until the patient is receiving the maximum tolerated dose.
Patients with intolerance: In patients who show severe intolerance to the recommended dose, treatment may be continued at a lower dose with the consequences of a longer therapy duration and a higher risk of relapse. In order to achieve the maximum possible efficacy in these patients, the dose should normally be continued at the highest tolerated dose.
Additional precautions: Patients should not donate blood during therapy and for 1 month following discontinuation of Isotretinoin because of the potential risk to the fetus of a pregnant transfusion recipient.

Adverse Effect

Most common adverse reactions (incidence ≥5%) are: dry lip, dry skin, back pain, dry eye, arthralgia, epistaxis, headache, nasopharyngitis, chapped lips, dermatitis, increased blood creatine kinase, chelitis, musculoskeletal discomfort, upper respiratory tract infection, reduced visual acuity.
Serious adverse effects include embryofetal toxicity, psychiatric disorders, pseudotumor cerebri, serious skin reactions, pancreatitis, lipid abnormalities, hearing impairment, hepatotoxicity, inflammatory bowel disease, skeletal abnormalities, ocular abnormalities, hypersensitivity.

Contraindication

Pregnancy: Isotretinoin can cause fetal harm when administered to a pregnant woman. Major congenital malformations, spontaneous abortions, and premature births have been documented following pregnancy exposure to Isotretinoin in any amount and even for short periods of time. Isotretinoin is contraindicated in females who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, treatment should be discontinued and the patient should be apprised of the potential hazard to the fetus.
Hypersensitivity: Treatment should be discontinued if the patient has hypersensitivity to this product (or Vitamin A, given the chemical similarity to Isotretinoin) or to any of its components.

Precaution

Unacceptable Contraception: Micro-dosed progesterone preparations are not an acceptable method of contraception during Isotretinoin therapy. Preferably the patient should use two complementary forms of contraception including a barrier method. Contraception should be continued for at least 1 month after stopping treatment with Isotretinoin, even in patients with amenorrhea.
Psychiatric Disorders: Depression, psychosis, suicidal thoughts and behavior, and aggressive and/or violent behaviors. All patients should be monitored for signs of depression and referred for appropriate treatment if necessary.
Serious skin reactions: Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN). As these events may be difficult to distinguish from other skin reactions that may occur, patients should be advised of the signs and symptoms and monitored closely for severe skin reactions.
Lipid Abnormalities: Triglyceridemia, low HDL and elevation of cholesterol, acute pancreatitis, rarely fatal hemorrhagic pancreatitis, in patients with either elevated or normal serum triglyceride levels. Monitor lipid levels at regular intervals.
Hepatotoxicity: Monitor liver function tests at regular intervals.
Gastrointestinal disorder: Inflammatory Bowel Disease. Patients experiencing severe (hemorrhagic) diarrhoea should discontinue Isotretinoin immediately.
Skeletal abnormalities: Arthralgias, back pain, decreases in bone mineral density and premature epiphyseal closure
Ocular Abnormalities: Corneal opacities, decreased night vision. These problems usually resolve after discontinuation of therapy.
High Risk Patients: In patients with diabetes, obesity, alcoholism or a lipid metabolism disorder undergoing treatment with Isotretinoin, more frequent checks of serum values for lipids and/or blood glucose may be necessary.

Pregnancy and Lactation

Use in pregnancy: Pregnancy Category X. Isotretinoin is contraindicated during pregnancy because Isotretinoin can cause fetal harm when administered to a pregnant woman. There is an increased risk of major congenital malformations, spontaneous abortions, and premature births following Isotretinoin exposure during pregnancy in humans. If this drug is used during pregnancy, or if the patient becomes pregnant while taking the drug, the patient should be apprised of the potential hazard to a fetus.
Use in lactation: It is not known whether this drug is present in human milk. Because many drugs are present in human milk and because of the potential for serious adverse reactions in nursing infants from Isotretinoin, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Drug Interaction

Isotretinoin can interact with following drugs: Vitamin A, Tetracyclines, Phenytoin, St. John's Wort, Systemic Corticosteroids, Norethindrone /ethinyl estradiol.

Overdose

Overdosage has been associated with vomiting, facial flushing, cheilosis, abdominal pain, headache, dizziness, and ataxia. These symptoms quickly resolve without apparent residual effects. Isotretinoin causes serious birth defects at any dosage

Storage Condition

Store below 30^{O}C temparature. Protect from light & moisture. Keep all medicines out of the reach of children.

How Supplied

Isotrin™ 10 : Each box contains 10 liquid filled capsules in blister pack.
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Manufactured by
SQUARE
PHARMACEUTICALS PLC.
Bangladesh