

Acerux® Cream

Acyclovir USP 5%

Description

Acerux® Cream is a topical antiviral preparation. Acyclovir is a synthetic purine derivative. It exerts its antiviral effect on Herpes simplex viruses (HSV) and Varicella zoster (VZV) virus by interfering with DNA synthesis and inhibiting viral replication. In cells infected with virus, the antiviral activity of Acyclovir appears to depend principally on the intracellular conversion of the drug to Acyclovir triphosphate which is the pharmacologically active form of the drug.

Mode of action

Viral (HSV-1, HSV-2 and VZV) thymidine kinase converts acyclovir to the acyclovir monophosphate, which is then converted to the diphosphate by cellular guanylate kinase, and finally to the triphosphate by phosphoglycerate kinase, phosphoenolpyruvate carboxykinase, and pyruvate kinase. Acyclovir triphosphate competitively inhibits viral DNA polymerase and competes with the natural deoxyguanosine triphosphate, for incorporation into viral DNA. Once incorporated, acyclovir triphosphate inhibits DNA synthesis by acting as a chain terminator.

Pharmacokinetics

Acyclovir is poorly water soluble and has poor oral bioavailability (15-30%). Intravenous administration is necessary if high concentrations are required. When orally administered, peak plasma concentration occurs after 1-2 hours. Acyclovir has a high distribution rate; protein binding is reported to range from 9 to 33%. The elimination half-life is approximately 3 hours. It is renal excreted.

Composition

Acerux® Cream: Each gm cream contains Acyclovir USP 50 mg.

Indications

Acerux cream is indicated for the treatment of initial and recurrent labial & genital *Herpes simplex* infections.

Dosage & administration

Apply to the lesion 5 times daily for 5-10 days to be started at first sign of attack.

Contraindications

Acyclovir is contraindicated in patients known to be hypersensitive to Acyclovir.

Side effects

Rash, gastro-intestinal disturbance, rise in bilirubin and liver-related enzymes, increase in blood urea and creatinine, decrease in hematological indices, headache, neurological reaction, fatigue.

Use in pregnancy & lactation

US FDA pregnancy category B. Caution should be exercised when it is administered to a nursing mother.

Precautions

Acyclovir should be administered with caution in patients with renal impairment and doses should be adjusted according to creatinine clearance. Monitor neutrophil count at least twice weekly in neonates.

Drug interactions

Probenecid reduces Acyclovir excretion and so increases plasma concentration and risk of toxicity.

Over dosage

Overdose symptoms may include seizure (convulsions), hallucinations, and urinating less than usual or not at all.

Storage

Acerux® Cream should be stored below 25°C. Keep in a cool and dry place, protected from light.

Packaging

Acerux® 5 gm Cream: Each tube pack contains 5 gm cream.

Acerux® 10 gm Cream: Each tube pack contains 10 gm cream.



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