HOSPIMAX
Maximising Life

Ceptimmun® 250 mg 500 mg

Mycophenolate Mofetil Tablets

Most Widely Accepted Immunosuppressant

Product Description:

Ceptimmun 500: Each film coated tablet contains Mycophenolate mofetil IP 500 mg

Ceptimmun250: Each film coated tablet contains Mycophenolate mofetil IP 250 mg

General Information

Ceptimmun (Mycophenolate mofetil) is the 2-morpholinoethyl ester of mycophenolic acid (MPA) works as an immunosuppressive agent. Mycophenolate mofetil is an inosine monophosphate dehydrogenase (IMPDH) inhibitor.

Mycophenolate mofetil is an immunosuppressants used in combination with cyclosporine or tacrolimus and corticosteroids, as well as in steroid-free regimens. Mycophenolate mofetil significantly reduces acute rejection rates following renal transplantation.

Indication & Usage

Ceptimmun is indicated for the prophylaxisof organ rejection in patientsreceiving allogeneic renal, cardiac or hepatic transplants.

Ceptimineshould be used concomitantly with cyclosporine and corticosteroids.

DOSAGE AND ADMINISTRATION

- **Adult kidney transplant patients:**
  - A dose of 1 gm administered orally twice a day(daily dose of 2 gm)
- **Pediatric kidney transplant patients:**
  - The recommended dose of Mycophenolate mofetil is 600 mg/m^2 administered twice daily.Patients with a body surface area of 1.25 m^2 to 1.5 m^2 may be dosed with Ceptimmun capsules at a dose of 750 mg twice daily (1.5 g daily dose). Patients with a body surface area >1.5 m^2 may be dosed with Ceptimmuncapsules or tablets at a dose of 1 g twice daily (2 g daily dose).
- **Adult liver transplant patients**:
  - 1.5 gm bid oral (daily dose of 3 gm)
- **Adult heart transplant patients**:
  - 1.5 gm bid oral (daily dose of 3 gm)

Mechanism of action

Mycophenolate mofetil is a semi synthetic prodrug that is rapidly hydrolyzed*in vivo* to form the active metabolite, mycophenolic acid (MPA)

The active immunosuppressant agent of mycophenolate mofetil MPA, is a potent, non-competitive, reversible inhibitor of inosine monophosphate dehydrogenase resulting in blockage of *de novo*, purine guanosine synthesis, selectively suppressing proliferation of T- and B-lymphocytes

Pharmacokinetic

Absorption: Mycophenolate mofetil is rapidly absorbed following oral administration and completely hydrolyzed to yield MPA, the active metabolite.MPA is metabolized to form the phenolic glucuronide of MPA (MPAG) which is not pharmacologically active.

Oral bioavailability of MPA, subsequent to mycophenolate mofetil administration, ranges from 80.7% to 94%.

Distribution:

The mean (±SD) apparent volume of distribution of MPA is approximately 4.0 (±1.2) L/kg. MPA is 97% bound to plasma protein. MPA, at clinically relevant concentrations, is 97% bound to plasma albumin. MPAG is 82% bound to plasma albumin at MPAG concentration ranges that are normally seen in stable renal transplant patients. Mean blood to plasma ratio of radioactivity concentrations was approximately 0.6 indicating that MPA and MPAG do not extensively distribute into the cellular fractions of blood

Metabolism:

MPA binds 97-99% to serum albumin in patients with normal renal and liver function. It is metabolised in the liver, gastrointestinal tract and kidney by uridine diphosphate gluconosyltransferases (UGTs). 7-O-MPA-glucuronide (MPAG) is the major metabolite of MPA. MPAG is usually present in the plasma at 20- to 100-fold higher concentrations than MPA, but it is not pharmacologically active.

Excretion

Less than one percent of the dose is excreted as MPA in the urine. Approximately 87% of the administered dose is excreted in the urine as MPAG.

Use in Specific Population

Pregnancy: Mycophenolate mofetil (MMF) can cause fetal harm when administered to a pregnant woman. Use of MMF during pregnancy is associated with an increased

risk of first trimester pregnancy loss and an increased risk of congenital malformations

Nursing Mother: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, and because of the potential for serious adverse reactions in nursing infants from mycophenolate mofetil, 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.

Pediatric Use: Based on pharmacokinetic and safety data in pediatric patients after renal transplantation, the recommended dose of Mycophenolate mofetil oral suspension is 600 mg/m^2 bid (up to a maximum of 1 g bid).

Safety and effectiveness in pediatric patients receiving allogeneic cardiac or hepatic transplants have not been established.

Geriatic Use: Use of mycophenolate mofetil in elderly patients should be with caution. There may be decreased hepatic, renal or cardiac function in elderly patients and they may be on concomitant or other drug therapy. Elderly patients may be at an increased risk of adverse reactions compared with younger individuals

Contraindication: Ceptimmun is contraindicated in patients with hypersensitivity to mycophenolate mofetil, mycophenolic acid or any component of drug product.

Warning & Precaution:

Lymphoma & other malignancies: Patients receiving mycophenolate mofetil or any other immunosuppressant are at the risk of developing lymphomas & other malignancies, particularly of skin

Serious Infection: Patients receiving mycophenolate mofetil are at high risk of developing various infection like opportunistic infection, fatal infection & sepsis.

Progressive Multifocal Leukoencephalopathy (PML): Progressive multifocal leukoencephalopathy (PML) cases, sometimes fatal, have been reported in patients treated with Mycophenolate mofetil. Hemiparesis, apathy, confusion, cognitive deficiencies and ataxia were the most frequent clinical features observed. The reported cases generally had risk factors for PML, including treatment with immunosuppressant therapies and impairment of immune function.

Neutropenia: Patients receiving Mycophenolate mofetil may develop neutropenia(absolute neutrophil count(ANC) < 0.5 x 10^3 / µL). If neutropenia develops (ANC <1.3 x 10^3/µL), dosing of mycophenolate mofetil should be interrupted or to be reduced, appropriate diagnostic tests to be performed, and the patient to be managed appropriately

Drug Interaction:

- Drugs that are eliminated by renal tubular secretion (e.g., aciclovir, ganciclovir) have the potential to inhibit the elimination of MPAG through competition for renal tubular secretion
- Antacids withmagnesium and aluminumhydroxides decreases the absorption of mycophenolate mofetil
- Agents that interfere with enterohepatic recycling (e.g., bile acid sequestrants, antibiotics) may reduce the amount of Mycophenolic acid available for reabsorption.
- Sevelamer: Sevelamer & other phosphate binders should not be used with mycophenolate mofetil as it reduce the absorption of Mycophenolate mofetil

Adverse Reactions:

Most common mycophenolic acid adverse drug reaction

Area of Affect	**Adverse Effect**
Gastrointestinal	Constipation Diarrhea Dyspepsia Nausea Vomiting Abdominal pain
General	Edema Pain Fever
Hematologic	Bone marrow suppression Anemia Leukopenia
Infectious	Sepsis CMV infection Urinary tract infection
Nervous System Disorder	Insomnia Tremor Headache