Volipred 1000 Injection

Methylprednisolone (1000mg) Injection

Description

Methylprednisolone (1000mg) Injection is a potent synthetic corticosteroid used to reduce inflammation and treat various autoimmune disorders, allergic reactions, inflammatory conditions, and immune system disorders. It works by suppressing the immune system, reducing swelling, and alleviating symptoms associated with conditions like arthritis, asthma, allergic reactions, and dermatologic conditions.

Methylprednisolone is available in a parenteral form, meaning it is administered by intravenous (IV) or intramuscular (IM) injection, making it ideal for fast and effective delivery, especially in acute situations.

Composition

Each vial contains:

- Methylprednisolone (1000mg)
- Excipients: Sodium chloride, Water for injection (pH adjustment and stabilization), and possibly other stabilizing agents.

Indications

Methylprednisolone 1000mg Injection is indicated for:

- Severe Allergic Reactions (e.g., anaphylaxis, serum sickness)
- Autoimmune Disorders: Such as systemic lupus erythematosus (SLE), rheumatoid arthritis, and psoriatic arthritis

- Acute Inflammatory Conditions: Including acute exacerbations of asthma, chronic obstructive pulmonary disease (COPD), and inflammatory bowel disease (IBD)
- Skin Conditions: Such as eczema, psoriasis, and other dermatologic disorders
- Neoplastic Diseases: In the management of lymphomas and leukemias
- Ophthalmic Conditions: Uveitis, optic neuritis, and other severe eye inflammations
- Organ Transplantation: As an immunosuppressive therapy in transplant patients to prevent rejection

Mechanism of Action

Methylprednisolone is a glucocorticoid steroid that works by binding to glucocorticoid receptors in cells, leading to the modulation of gene expression. It reduces the production of pro-inflammatory cytokines, chemokines, and other mediators of inflammation. The primary effects of methylprednisolone include:

- Anti-inflammatory: Reduces swelling, redness, and pain associated with inflammation
- Immunosuppressive: Inhibits immune responses, which is beneficial in autoimmune diseases or organ transplantation
- Antiallergic: Helps prevent or mitigate the effects of allergic reactions by blocking the release of histamine and other allergy-related substances

Dosage and Administration

• Adult Dosage:

- The initial dose is typically 1g (1000mg) administered via IV or IM injection.
- The dosage and duration of therapy depend on the condition being treated and the patient's response. In certain cases, higher doses or repeated administrations may be necessary, especially in acute conditions like allergic reactions or flare-ups of autoimmune diseases.
- For acute asthma, an initial dose of 1000mg may be followed by a tapering regimen over several days.
- In organ transplantation, 1000mg may be administered intravenously on the first day, with continued treatment based on the patient's clinical status.
- Pediatric Dosage: The dose for children should be based on weight and the specific condition being treated, but this should only be administered under the guidance of a pediatrician.
- Administration:
 - For IV administration, the injection should be delivered slowly over several minutes to avoid side effects like cardiovascular complications.
 - For IM administration, it should be injected deeply into the muscle. Avoid injecting into sensitive areas, such as the gluteal area, to reduce the risk of irritation.

Contraindications

- Systemic fungal infections:
 Methylprednisolone should not be used in patients with systemic fungal infections, as it may worsen the infection.
- Hypersensitivity: Contraindicated in patients with known hypersensitivity to methylprednisolone or any of its components.

- Live vaccines: Should not be administered during or shortly after methylprednisolone treatment due to the immunosuppressive effect.
- Active tuberculosis (TB) or untreated infections: Steroids can mask the symptoms of infections or worsen existing infections.

Warnings and Precautions

- Infections: Methylprednisolone may increase the risk of infections due to its immunosuppressive action. Patients should be carefully monitored for signs of infection.
- Gastrointestinal bleeding: Use with caution in patients with a history of gastric ulcers or gastrointestinal bleeding, as corticosteroids can increase the risk of ulcer formation and bleeding.
- Hyperglycemia: Methylprednisolone can increase blood sugar levels. Patients with diabetes or those at risk of diabetes should be closely monitored for hyperglycemia.
- Osteoporosis: Prolonged use of steroids can lead to bone loss and increase the risk of fractures. Use the lowest effective dose for the shortest duration necessary.
- Psychiatric side effects: Can cause mood swings, insomnia, euphoria, or in rare cases, psychosis. Psychiatric symptoms should be closely monitored, especially in long-term use.
- HPA Axis Suppression: Prolonged use may suppress the hypothalamic-pituitaryadrenal (HPA) axis, leading to reduced endogenous cortisol production. Tapering of the dosage is recommended when discontinuing therapy.

Side Effects

Possible side effects of methylprednisolone injection include:

- Fluid retention and edema
- Increased blood pressure
- Hyperglycemia and diabetes
- Gastrointestinal irritation: including nausea, vomiting, or ulcers
- Increased risk of infections
- Mood changes: anxiety, insomnia, or mood swings
- Cataract formation and glaucoma with prolonged use
- Osteoporosis and muscle weakness over time
- Skin thinning and easy bruising
- Weight gain due to fluid retention and increased appetite

Drug Interactions

- Antidiabetic drugs: Corticosteroids may increase blood glucose levels, potentially requiring adjustments to diabetic medications.
- Anticoagulants: Corticosteroids may affect the anticoagulant effect of warfarin, necessitating closer monitoring of INR (International Normalized Ratio).
- Cyclosporine: Concurrent use may increase the effects of cyclosporine and increase the risk of toxicity.
- NSAIDs: Using methylprednisolone with NSAIDs (e.g., ibuprofen, aspirin) increases the risk of gastrointestinal side effects, such as bleeding or ulcers.

Storage Instructions

- Store at room temperature (15°C to 30°C), away from moisture and heat.
- Keep the vial tightly closed and protect it from light.
- Do not freeze.
- Keep out of reach of children.

- Form: Injection (IV or IM)
- Strength: 1000mg per vial
- Pack Size: Available in single vials or multi-dose packs.

Conclusion

Methylprednisolone 1000mg Injection is a potent corticosteroid used to treat severe inflammatory, autoimmune, and allergic conditions. It is a powerful medication that helps reduce swelling, inflammation, and pain quickly. Its use requires careful medical supervision, especially in long-term treatments, due to potential side effects such as infection risks and gastrointestinal issues. Always follow the prescribed dosage and consult with a healthcare provider before starting therapy.

Manufactured in India for:



(An ISO 9001: 2015 Certified Co.)

Plot no.: 367-FF, Industrial Area Phase-I,

Panchkula-134113

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Presentation