Thiatale Injection

Thiamine HCl I.P. 100 mg Injection

Generic Name: Thiamine Hydrochloride (Vitamin

B1)

Formulation: Sterile solution for injection

Strength: 100 mg/mL

Description

Thiamine Hydrochloride is a water-soluble vitamin essential for carbohydrate metabolism, normal nerve function, and energy production in the body. It is converted into its active coenzyme forms, thiamine pyrophosphate (TPP) and thiamine triphosphate (TTP), which are critical for enzymatic reactions involved in glucose metabolism and neurotransmission.

Thiamine deficiency can lead to serious neurological and cardiovascular disorders, including beriberi, Wernicke's encephalopathy, and Korsakoff syndrome.

Pharmacological Action

Thiamine acts as a coenzyme in the metabolism of carbohydrates, facilitating the conversion of pyruvate to acetyl-CoA via the pyruvate dehydrogenase complex. It is vital for:

- Energy production in cellular respiration
- Proper functioning of the nervous system and muscle coordination
- Maintenance of cardiovascular health

Indications

Thiamine HCl Injection is indicated for:

- 1. **Prevention and treatment of thiamine deficiency**, which may occur due to:
 - Chronic alcoholism
 - o Malnutrition or poor dietary intake
 - Prolonged illness or recovery phases
- 2. Treatment of diseases associated with thiamine deficiency, including:
 - o Beriberi (wet or dry forms)
 - o Wernicke's encephalopathy
 - o Korsakoff syndrome
 - o Peripheral neuritis or polyneuropathy
- 3. Supportive therapy in:
 - o Severe infections
 - o Hyperemesis gravidarum
 - Post-surgical recovery, especially gastrointestinal surgery
 - Conditions requiring high metabolic demands

Dosage and Administration

Route of Administration:

- Intramuscular (IM)
- Intravenous (IV), slow injection or infusion

Adult Dosage:

- Mild Deficiency: 50–100 mg once daily via IM or slow IV.
- Severe Deficiency (e.g., Wernicke's Encephalopathy): 100 mg three times daily for 2–3 days, followed by oral therapy.

Pediatric Dosage:

• As directed by the physician based on weight and severity of deficiency.

Note: Dilution is required for IV infusion. Administer slowly to prevent adverse reactions.

Contraindications

• Hypersensitivity to thiamine or any of the formulation components.

Precautions

- Hypersensitivity Reactions: Rare anaphylactic reactions have been reported. Test doses may be considered for at-risk individuals.
- 2. **Pregnancy and Lactation:** Safe for use during pregnancy and breastfeeding under medical supervision.
- 3. **Neurological Conditions:** Ensure correct diagnosis in neurological disorders, as similar symptoms may occur due to other deficiencies.
- 4. **Incompatibilities:** Do not mix with alkaline or oxidizing solutions.

Adverse Reactions

Adverse effects are rare but may include:

- Mild rash, itching, or redness at the injection site
- Nausea, sweating, or dizziness following rapid IV injection
- Rare cases of anaphylaxis (require immediate medical attention)

Overdose

Overdose is uncommon but may result in mild gastrointestinal symptoms or allergic reactions. Manage with supportive care and symptomatic treatment.

Storage and Handling

- Store below 25°C.
- Protect from light and heat.
- Do not freeze.

Packaging

Available in 1 mL ampoules/vials with sterile water for injection. Supplied in cartons of 10 ampoules/vials or as specified by the manufacturer.

Caution

- Use only under the supervision of a registered medical practitioner.
- Keep out of reach of children.

Manufactured in India for:



(An ISO 9001: 2015 Certified Co.)

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Panchkula-134113

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