of thiamine is further increased, thiamine appears unchanged in the urine in amounts exceeding 100 µg/24 hours.
Vitamin B1 depletion can occur after approximately 3 weeks of total absence of thiamine in the diet. Patients receiving dialysis may require supplementation.

DOSAGE AND ADMINISTRATION

Dosage: Wernicke's encephalopathy and high output cardiac failure secondary to beri-beri must be treated as emergencies. Critically ill patients or those with malabsorption syndromes should also be treated by the IV or IM route. In the treatment of beri-beri, 10 to 20 mg of thiamine may be given intramuscularly 3 times daily for 2 weeks. Dosage should then be reduced depending on patient response, followed by oral therapy. In Wernicke's encephalopathy, 100 mg IV is given initially followed by 50 to 100 mg IM or IV daily until the patient is eating a well balanced diet. IV dextrose solutions increase thiamine requirements and thiamine should be given parenterally before administering these solutions to the patient with Wernicke's. Following clinical improvement and consumption of a regular diet, oral therapy may be instituted

PRECAUTIONS

Serious sensitivity reactions can occur. Deaths have resulted from IV use. An intradermal test dose is recommended prior to administration in patients suspected of being sensitive to the drug. Multiple vitamin decencies should be suspected in any case of dietary inadequacy. The patient should be advised as to proper dietary habits during treatment so that relapses will be less likely to occur with reduction in dosage or cessation of injection therapy.

PREGNANCY

Studies in pregnant women have not shown that thiamine HCl increases the risk of foetal abnormalities if administered during pregnancy. If the drug is used during pregnancy, the possibility of foetal harm appears remote. Because studies cannot rule out the possibility of harm, thiamine should be used during pregnancy only if clearly needed.

NURSING MOTHERS

It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when thiamine is administered to nursing women.

ADVERSE EFFECTS:

Some tenderness and induration may follow intramuscular use. Feeling of warmth, pruritus, urticaria, weakness, sweating, nausea, restlessness, tightness of the throat, angioneurotic edema, cyanosis, pulmonary edema, hemorrhage into the gastrointestional tract, collapse and death have been reported.

OVERDOSAGE:

Parenteral doses of 100 mg to 500 mg singly have been administered without toxic effects. However, dosages exceeding 30 mg 3 times a day are not utilized effectively.
When the body tissues are saturated with thiamine, it is excreted in the urine as pyrimidine. As the intake of thiamine is further increased, it appears unchanged in the urine.

Storage: - Store Protected from direct light.
Improper Storage may deteriorate the product
Medicine: - Keep out of reach of children.

Presentation:-

Thiamine Injection IP 200mg /2ml (100 mg/ml) in a 2 ml ampoule.

Manufactured by:
AMERICAN REMEDIES
Care & Cure with Research
American Remedies Healthcare Pvt. Ltd.
(An ISO 9001-2015 Certified Company)
ICO: American Remedies LLC, DE, USA
Gala No. 105 to 111, 1st Flr., Bldg. No. E-15/A, Harihar Complex, Bhiwandi, Mumbai - 421302
At: Vill. Surajpur Nahan Road Paonta Sahib, Distt. Sirmour, Himachal Pradesh-173001
E-mail: info@americanremedies.in
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Scan for Batch Certificate

For the use only of a Registered Medical Practitioner or a Hospital or a Laboratory

Thiamine Injection I.P. 100mg

AMERICAN
THIACAN 200
Injection

For IM/Slow IV use only

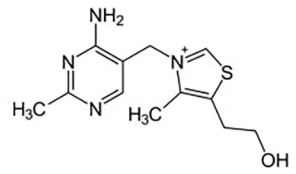
Composition:-

Each ml Contains:-

Thiamine Hydrochloride	IP	100 mg
Sterile Water for Injection	IP	q.s

DESCRIPTION:-

Thiamine injection IP is a sterile solution of Thiamine Hydrochloride in Water for Injection for intramuscular (IM) or slow intravenous (IV) administration.
Thiamine hydrochloride, or vitamin B1, occurs as white cyrstals or crystalline powder that usually has a slight, characteristic odor. Freely soluble in water; soluble in glycerin; slightly soluble in alcohol; insoluble in ether and benzene. Thiamine is rapidly destroyed in neutral or alkaline solutions but is stable in the dry state. It is reasonably stable to heat in acid solution.
The chemical name of thiamine hydrochloride is 3-[(4-amino-2-methylpyrimidin- 5-yOmethyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride hydrochloride. And it has the following structural formula:



Cl, HCl

Thiamine Hydrochloride

CLINICAL PHARMACOLOGY

The water soluble vitamins are widely distributed in both plants and animals. They are absorbed in man by both diffusion and active transport mechanisms. These vitamins are structurally diverse (derivatives of sugar, pyridine, purines, pyrimidine, organic acid complexes and nucleotide complex) and act as coenzymes, as oxidation-reduction agents, possibly as mitochondrial agents. Metabolism is rapid, and the excess is excreted in the urine.
Thiamine is distributed in all tissues. The highest concentrations occur in liver, brain, kidney and heart. When thiamine intake is greatly in excess of need, tissue stores increase 2 to 3 times. If intake is insufficient, tissues become depleted of their vitamin content. Absorption of thiamine following IM administration is rapid and complete.
Thiamine combines with adenosine triphosphate (ATP) to form thiamine pyrophosphate, also known as cocarboxylase, a coenzyme. Its role in carbohydrate metabolism is the decarboxylation of pyruvic acid in the blood and a-ketoacids to acetaldehyde and carbon dioxide. Increased levels of pyruvic acid in the blood indicate vitamin B1 deficiency.
The requirement for thiamine is greater when the carbohydrate content of the diet is raised. Body depletion of vitamin B1 can occur after approximately 3 weeks of total absence of thiamine in the diet.

PHARMACOLOGY

In the body, thiamine combines with adenosine triphosphate (ATP) to form thiamine pyrophosphate, also known as cocarboxylase, a coenzyme. Its role in carbohydrate metabolism is the decarboxylation of pyruvic acid and alphaketoacids to acetaldehyde and carbon dioxide. Increased levels of pyruvic acid in the blood indicate a vitamin B1 deciency. The normal mean whole-blood level of bound thiamine is 28 µg/L and those of free thiamine are 6.5 to 11.4 µg/L. Thiamine requirement is directly related to the carbohydrate content of the diet. The minimum daily requirement is estimated to be 0.33 mg/4200 kL (1000 kcal). Absorption is an active process. The total amount of large doses which can be absorbed is 4 to 8 mg. Body stores are approximately 30 mg with a 1 mg daily turnover. When the body tissues are saturated with thiamine, it is excreted in the urine as pyrimidine. As the intake