Package Insert

CB12 Solution for Injection 1000 mcg/mL

DESCRIPTION

CB12 Solution for Injection 1000 mcg/mL, is clear red solution in 1 mL brownish Type I glass ampoule (Easy-break).

Each mL contains 1000 mcg cyanocobalamin. Each ampoule also contains Sodium Chloride, Citric acid anhydrous, Benzyl alcohol (0.01ml as preservative) and Water for Injection.

CLINICAL PHARMACOLOGY

Pharmacology

Cyanocobalamin is the most stable and widely used form of Vitamin B12, and has haematopoietic activity apparently identical to that of the antianeamia factor in purified liver extract. Parenteral (intramuscular) administration of Vitamin B12 completely reverses the megaloblastic aneamia and GI symptoms of Vitamin B12 deficiency. Gastrointestinal absorption of Vitamin B12 depends on the presence of sufficient intrinsic factor and calcium ions. Intrinsic factors deficiency causes pernicious anemia, which may be associated with subacute combined degeneration of the spinal cord.

In addition, Schilling test is a test utilizing radioactive Vitamin B12 for the diagnosis of primary pernicious anemia.

Pharmacokinetics

Vitamin B12 is metabolized in the liver has a half-life of approximately 6 days. It is excreted through the biliary system, largely unchanged in urine.

INDICATIONS AND USAGE

CB12 Solution for Injection 1000 mcg/ml is indicated for:

- For prophylaxis of anaemia associated with Vitamin B12 deficiency.
- For uncomplicated pernicious anaemia or Vitamin B12 malabsorption.
- For Schilling Test as a diagnostic aid to investigate Vitamin B12 malabsorption.

DOSAGE AND ADMINISTRATION

(i) Prophylaxis of anaemia

- 250-1000mcg intramuscularly every month

(ii) Uncomplicated pernicious anaemia or Vitamin B12 malabsorption

- Initial 100 mcg daily for 5-10 days followed by 100-200 mcg monthly until complete remission is achieved. Maintenance: up to 1000 mcg monthly.

- For children, 30-50 mcg daily for 2 or more weeks (to a total dose 1-5mg) or as prescribed.

(iii) Schilling Test

- The loading dose for Schilling Test is 1000mcg (1mg).

INSTRUCTION FOR USE:

1. Wash your hands thoroughly with soap and water.

2. Check the dose of your medication.
3. Look to see if there is any liquid at the top of the ampoule. If there is, gently flick the ampoule with your finger to get all the liquid into the bottom portion of the ampoule.
4. Hold the bottom of the ampoule in one hand. Clean the ampoule neck with alcohol wipe using the other hand. Then place the alcohol wipe around the neck of the ampoule and break it open by pressing the thumb against the neck of the ampoule.
5. To break, place thumb on the color line and snap back.
6. Tilt the ampoule down at a 45° angle. Insert the needle into the solution in the ampoule.
7. Draw up the medication by pulling back the plunger slowly and steadily until reach the dose.
8. Check the syringe for air bubbles. Hold it with the needle pointing upward.
   If there are air bubbles, tap finger against the barrel of the syringe to get the bubbles to the top. Slowly and carefully push the plunger up so that the bubbles are pushed out through the needle and see a drop of medication.
9. When there are no air bubbles, check the dose of the medication. If the dose is incorrect, repeat steps 6 through 8 until draw up the right dose.
10. This drug product can be injected directly without any diluent for dilution.

CONTRAINDICATIONS

Hypersensitivity to cobalt and/or Vitamin B12 is a contraindication.

WARNINGS AND PRECAUTIONS

A sensitivity history should be obtained from the patient prior to administration of Vitamin B12；an intradermal test dose is recommended before Vitamin B12 is administered for the management of vitamin deficiency to patients who may be sensitive to cobalamins.

Serum potassium concentrations should be monitored during early Vitamin B12 therapy and potassium administered if necessary, since fatal hypokalemia could occur upon conversion of megaloblastic anemia to normal erythropoiesis with Vitamin B12 as a result of increased erythrocyte potassium requirements. Because Vitamin B12 deficiency may suppress the signs of polycythemia vera, treatment with cyanocobalamin may unmask this condition. The increase in nucleic acid degradation produced by administering Vitamin B12 to Vitamin B12-deficient patients could result in goal in susceptible individuals. Therapeutic response to Vitamin B12 may be impaired by concurrent, or by drugs having bone marrow suppressant effects (e.g. chloramphenicol).

Folic acid should be administered with extreme caution to patients with undiagnosed of pernicious anaermia by alleviating hematologic manifestations to progress. This may result in severe nervous system damage before the correct diagnosis is made. Vitamin preparations containing folic acid should be avoided by patients with pernicious anaemia because folic acid may actually potentiate neurologic complications of Vitamin B12 deficiency. Conversely, doses of cyanocobalamin exceeding 10 mcg daily may improve folate-deficient megaloblastic anaemia and obscure the true diagnosis.

Cyanocobalamin should not be used in patients with early Leber's disease (hereditary optic nerve atrophy) since rapid optic nerve atrophy has been reported following administration of the drug to these patient who have experienced hypersensitivity reaction to the vitamin or to cobalt.

PRESERVATIVES AND WARNING

As this preparation contains benzyl alcohol, its use should be avoided in children under two years of age. Not to be used in neonates.

INTERACTION WITH OTHER MEDICINES

Serum concentration of cyanocobalamin may be lowered by oral contraceptives but this interaction is unlikely to be significance but should be taken into account when performing assays for blood concentrations. Parenteral chloramphenicol may attenuate the effect of Vitamin B12 in anaemia.

STATEMENT ON USAGE DURING PREGNANCY AND LACTATION

Pregnancy: Vitamin B_{12} requirements are increased in pregnant women. Parenteral preparations should be used during pregnancy only when the potential benefits justify the potential risks to the fetus.

Lactation: Vitamin B_{12} is distributed into human milk, therefore, it is not recommended for breastfeeding mothers unless the expected benefits to the mother outweigh the potential risk to the infant.

ADVERSE REACTIONS

Allergic hypersensitivity reactions have occurred rarely after cyanocobalamin and include skin rashes such as rush and itching, and anaphylaxis. Patients who are hypersensitive to cyanocobalamin injection may be able to take oral cyanocobalamin. Injection site reactions including pain, erythema, pruritus, induration, swelling, and necrosis can occur.

Other adverse effect reported with cyanocobalamin include gastrointestinal disturbances, fever, chills, but flushing, dizziness, malaise, acneiform and bullous eruption, and tremor. Cyanocobalamin should, if possible, not be given to patients with suspected Vitamin B12 deficiency without first conforming the diagnosis. Regular monitoring of the blood is advisable. Use of doses greater than 10 micrograms daily may produce response in patients with folate deficiency, indiscriminate use may mask the precise diagnosis. Conversely, folate may mask Vitamin B12 deficiency.

Cyanocobalamin should not be used in Leber's disease or tobacco amblyopia since these optic neuropathies may degenerate further.

SYMPTOM AND TREATMENT OF OVERDOSAGE

No overdosage has been reported with this drug.

INCOMPATIBILITIES

Strong bases, strong acids and strong oxidizing agents.

STORAGE

Store below 30℃.

After opening, CB12 Solution for Injection 1000 mcg/ml is stable at least 48 hours for below 30℃ under normal indoor light and below 2-8℃ condition under refrigerator light.

PACKAGING

1 mL brownish Type I glass ampoule (Easy-break).

100 ampoules/box.

MANUFACTURER

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DATE OF REVISION:

August 2022

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