

NEW ZEALAND DATA SHEET

Name of the Medicine

Methylthioninium Chloride Injection USP 1% w/v containing Methylthioninium Chloride USP
1% w/v

Presentation

A dark blue liquid.
Sterile aqueous injection containing Methylthioninium Chloride 1% w/v.

Uses

Actions

In-vivo, in low concentration, Methylthioninium Chloride speeds up the conversion of methaemoglobin to haemoglobin.

Pharmacokinetics

After i.v. administration Methylthioninium Chloride is rapidly taken up by the tissues. It is also well absorbed by the oral route. The majority of the dose is excreted in the urine, usually in the form of leuco Methylthioninium Chloride.

Indications

Drug induced methaemoglobinaemia

Dosage and Administration

Inject Methylthioninium Chloride very slowly over several minutes.
Route of administration: Intravenous Injection using a sterile 0.45 micron filter.
Adults and the elderly
0.1 - 0.2 ml/kg body weight.

Children

Not recommended.

Contra-indications

Methylthioninium Chloride injection is contraindicated in the following circumstances:
Glucose-6-phosphate dehydrogenase deficiency
Sodium nitrite induced methaemaglobinaemia.
Severe renal impairment, chlorate poisoning, cyanide poisoning
Known hypersensitivity to the medicine

Not to be administered by intra-spinal injection or subcutaneous injection

Warning and Precautions

Methylthioninium Chloride must be injected very slowly over a period of several minutes to prevent high local concentrations of the compound from producing additional methaemoglobin. Do not exceed the recommended dosage.

CNS Toxicity

The use of methylthioninium chloride for localization in parathyroid surgery is not an approved indication. Adverse CNS effects including confusion, disorientation, agitation and expressive aphasia, altered muscle tone in limbs, hypoxia, ocular symptoms, and depressed level of consciousness have been reported following intravenous infusion of methylthioninium chloride for parathyroid surgery.

Serotonin Syndrome

Spontaneous reports of serotonin syndrome associated with the co-administration of methylthionium chloride and serotonergic agents, including antidepressants such as selective serotonin reuptake inhibitors (SSRIs) have been reported. Co-administration of methylthionium chloride and serotonergic agents is therefore not recommended except where administration of methylthionium chloride and concomitant serotonergic agents is essential. In those cases the lowest possible dose should be used and patients should be closely observed for signs and symptoms of serotonin syndrome such as cognitive dysfunction, hyperpyrexia, hyperreflexia, clonus and incoordination. If signs or symptoms occur physicians should consider discontinuing either one or both agents; if the concomitant serotonergic agent is withdrawn, discontinuation symptoms can occur.

Use in renally impaired patients

Methylthionium Chloride is excreted mainly via the urine. Caution should be exercised when administering to patient with mild to moderate renal impairment. In severe renal impairment methylthionium chloride may precipitate Heinz body formation and haemolytic anaemia.

Effect on laboratory tests

Phenolsulfophthalein excretion test: methylene blue may cause false positive test results.

Pulse oximetry: methylene blue may result in an underestimation of the oxygen saturation reading.

Patient monitoring

Full blood count, including reticulocyte count should be undertaken to ensure haemolysis has not occurred.

Long term administration of methylene blue may result in anaemia. Haemoglobin levels should be monitored during long-term therapy.

Methaemoglobin levels should be monitored throughout therapy.

Pregnancy and Lactation

As with all drugs during Pregnancy, care should be taken in assessing the balance of risks and benefits.

There is no information on whether methylthionium chloride crosses into breast milk, therefore it is recommended that breastfeeding is discontinued prior to administration.

Effects on Ability to Drive and Use Machines

Dizziness may occur and driving should not be considered until the patients head is clear

Interactions

Methylthionium chloride is an inhibitor of monoamine oxidase (MAOI). Therefore administration to patients taking serotonergic medicines is not recommended unless absolutely necessary (see warnings and precautions).

Adverse Effects

Large intravenous doses of Methylthionium Chloride produce nausea, abdominal and precordial pain, dizziness, headache, profuse sweating, mental confusion and the formation of methaemoglobin, also hypertension.

Vomiting, diarrhea, blue faeces and saliva

Haemolysis

Rash

Headache, serotonin syndrome

Injection site reactions

Overdosage

The symptoms of overdose are as above. The patient should be maintained under observation and appropriate supportive measures taken as necessary.

Large doses of methylthionium chloride can produce methaemoglobinaemia. Side effects seen with high doses include chest pain, dyspnoea, restlessness, apprehension, tremors and a sense of oppression. Large doses are irritant to the urinary tract. In addition, it can produce a mild haemolysis with moderate hyperbilirubinaemia, reticulosis and slight anaemia. Rarely, however, severe haemolytic anaemia with Heinz body formation has resulted. Methylthionium chloride in large doses could cause a blue discolouration of the skin after methaemoglobin levels have returned to normal.

Pharmaceutical Precautions*Instructions for Use/Handling*

Use immediately on opening. Inject very slowly over several minutes.

Administer through a sterile 0.45 micron filter.

Incompatibilities

None stated

Shelf Life

Unopened ampoules: 5 years (60 Months).

Special Precautions for Storage

Store below 25°C.

Medicine Classification

Prescription Medicine (PM).

Package quantities

Clear colourless neutral glass ampoules containing 10ml of product.

Packs of 10 ampoules per pack.

Further Information

A qualitative list of excipients:

Water for Injections BP to 100%

Sponsor Name and Address

Max Health Ltd

Mairangi Bay

Auckland 0754

Date of Preparation

7 January 2011