

Isometamidium chloride hydrochloride

SCHEDULING STATUS: S3

CURRENTLY COMPOUNDED FORMULATIONS:

| Active ingredient(s) | Injectable | Oral equine paste | Oral carnivore paste | Orals for exotics | Oral solution/suspension | Topical treatment | Shampoo | Capsules/Tablets | Oral powder |
|--------------------------------------|------------|-------------------|----------------------|-------------------|--------------------------|-------------------|---------|------------------|-------------|
| Isometamidium chloride hydrochloride | ✓ | | | | | | | | |

REGISTERED PRODUCT/ TRADE NAME: Samorin®

PHARMACOLOGICAL CLASSIFICATION: Triazene trypanocidal agent

PHARMACOLOGICAL ACTION: Cytotoxic or mutagenic effects of triazene trypanocidal agents are based on the presence of DNAO(6)-methylguanine adducts that generate base/base mismatches with cytosine and thymine. These adducts will then lead to cell death. Should the cell survive, it provokes somatic point mutations in the DNA helix.^[2]

INDICATIONS: Curing and preventing trypanosomiasis.

DOSAGE AND DIRECTIONS FOR USE:

CATTLE:

Prevention:

Routine use: 2.5 ml of a 2% solution per 100 kg body weight deep IM (0.5 mg/kg BM)

Use under heavy challenge – 5 ml of a 2% solution per 100 g body weight deep IM (1 mg/kg BM)

Repeat injection at intervals of 10-12 weeks or more, depending upon the level of fly challenge.

Treatment:

1.25 – 2 ml of a 2% solution per 100kg body weight deep IM (0.25-0.5 mg/kg BM)

When clinical cases occur, the whole herd should be treated.

Doses of 15 ml or more should be divided into two different sites.

Massage the injection site well.^[1]

BUFFALO:

Prevention:

5 ml of a 2% solution per 100kg body weight deep IM (1 mg/kg BM)

Repeat injection at intervals of 10-12 weeks or more, depending upon the level of fly challenge.

Treatment:

5 ml of a 2% solution per 100 kg body weight deep IM (1 mg/kg BM)

Doses of 15 ml or more should be divided into two different sites.

Massage the injection site well.^[1]

SHEEP AND GOATS:

Prevention and treatment:

0.5 ml of a 2% solution per 20 kg body weight deeply into the muscle of the thigh (0.5 mg/kg BM)

Massage the injection site well.

For prophylactic effect, repeated treatments are needed at intervals of 10-12 weeks or longer, depending on the level of fly challenge.

When clinical cases occur, the whole group should be treated. ^[1]

HORSES:

Prevention and treatment:

2.5 ml of a 2% solution per 100 kg body weight deep IM (0.5 mg/kg BM). The total volume should be divided and injected at two to three sites.

Massage the injection site well.

For prophylactic effect, the injections are to be repeated at intervals of 8-16 weeks depending on the level of fly challenge. ^[1]

DOGS:

Prevention and treatment:

0.5-1 ml of a 2% solution per 20 kg body weight deep IM into the muscle of the middle third of the neck or deep into the thigh (0.5-1 mg/kg BM).

Massage the injection site well.

For prophylactic effect, the injections will need to be repeated at intervals of 6-8 weeks or longer, depending on fly challenge. ^[1]

CAMELS (one and two humped):

2.5-3.75 ml of a 2% solution per 100 kg body weight (0.5-0.75 mg/kg BM) by slow IV. ^[1]

WARNINGS/ PRECAUTIONS/ CONTRA-INDICATIONS:

- Care should be taken not to inject isometamidium chloride subcutaneously.
- Do not re-treat with isometamidium chloride or any other trypanocide within one month of treatment.
- May provoke tissue reactions at the injection site. ^[1]

REFERENCES:

1. Samorin® package insert
2. Triazine compounds: mechanism of action and related DNA repair systems; Francesco Marchesi, Mario Turriziani, Grazia Tortorelli, Guisepe Avvisati, Francesco Torino, Liana De Vecchis