

Generic Name Tolperisone hydrochloride

Sustained release tablet

Trade Name TOLKEM SR 450



1. **NAME OF THE MEDICINAL PRODUCT:** Tolperisone hydrochloride Sustained release tablet

2. **QUALITATIVE AND QUANTITATIVE COMPOSITION:**

Tolkem SR 450
Each Sustained release tablet contains
Tolperisone hydrochloride J.P.....450 mg

3. **PHARMACEUTICAL FORM:** tablet

4. **CLINICAL PARTICULARS**

4.1 **Therapeutic Indications:**

For the relief of painful muscle spasms of the skeletal musculature

4.2 **Posology and Method of Administration:**

Can be given as once a day

4.3 **Contraindications**

Tolperisone hydrochloride tablets are contraindicated in patients who are hypersensitive to any of the ingredients of the formulation. Tolperisone is contraindicated in patients suffering from myasthenia gravis and in patients

4.4 **Special Warnings and Special Precautions for Use**

Since, no well-controlled studies have been carried out with the drug in pregnant and lactating women; tolperisone should be used with caution in such patients keeping the risk-benefit ratio of the drug.

4.5 Interaction with Other Medicinal Products and Other Forms of Interaction

No drug interactions of Tolperisone hydrochloride have been reported with the concomitant intake of benzodiazepines, non-steroidal anti-inflammatory drugs (NSAIDs), analgesics and alcohol.

4.6 Fertility, Pregnancy and Lactation

Since, no well-controlled studies have been carried out with the drug in pregnant and lactating women; tolperisone should be used with caution in such patients keeping the risk-benefit ratio of the drug.

4.7 Effects on Ability to Drive and Use Machines

4.8 Undesirable Effects

It may cause excessive sweating, urticaria or erythema. Also may lead to GI upset with abdominal pain, nausea, vomiting, diarrhoea, flatulence or dryness of mouth

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic Properties

Mechanism of action

Being, centrally acting muscle relaxant, tolperisone acts at the level of spinal cord by blocking sodium channels and calcium channels. Tolperisone exerts its spinal reflex inhibitory action predominantly via a pre synaptic inhibition of the transmitter release from the primary afferent endings via a combined action on voltage-gated sodium and calcium channels.

Tolperisone increases the blood supply to skeletal muscles; this action is noteworthy since a muscle contracture may compress the small blood vessels and induce an ischemia leading to release of pain stimulating compounds.

Tolperisone causes preferential antinociceptive activity against thermal stimulation that is likely to be attributed to its local anesthetic action.

Tolperisone causes muscle relaxation by its action on central nervous system. It also leads to membrane stabilization & has analgesic activity. This muscle relaxation is dose dependant.

5.2 Pharmacokinetic Properties

Tolperisone gets absorbed quickly in the body and peak plasma concentration is achieved usually 0.5–1.0 h after oral ingestion. The C_{max} is between 64.2–784.9 ng/ml and T_{max} is 0.90 ±0.31 h.⁴ Absolute bio-availability is approximately 17% due to hepatic first-pass effect. Tolperisone undergoes both P450-dependent and P450-independent microsomal biotransformations⁵. It is eliminated from the body primarily through the kidneys - 85% and 98% of the given dose is

eliminated in the urine after 8 hours and 24 hours respectively. Elimination half-life of Tolperisone HCl is between 1.5 - 2.5 hrs.

Tolperisone can be administered through various routes (oral, intra-arterial, intrathecal, intraspinal, intramuscular, intraperitoneal, intravenous, intranasal and inhalation). However, intramuscular, intravenous and oral are preferred routes of administration. Therapeutically effective dosage of tolperisone ranges from approximately 75 to 1500 mg/day.

Pharmacokinetic profile of tolperisone varies from individual to individual. There is a need for individualization of dosage of tolperisone while administering the therapy to the patient.

6. PHARMACEUTICAL PARTICULARS

6.1 Shelf-life: 24 months

6.2 Special Precautions for Storage: Store in a cool dry place, Protected from light.

6.3 Nature and Contents of Container: 10X10 Tablets Blister Packs

Marketed By:

Alkem Laboratories Limited,
Alkem House, S.B. Road,
Lower Parel (West)
Mumbai 400013