

CLONIC

Film Coated Tablets & Syrup



Composition:

Tablets: Each Clonic (250-500-1000) Film Coated Tablet contains: Levetiracetam (250-500-1000) mg.

Syrup: Each 5 ml Clonic Syrup contains: Levetiracetam 500 mg.

Mechanism of Action:

The precise mechanism by which Levetiracetam exerts its antiepileptic effect is unknown. In vitro studies show that Levetiracetam affects intraneuronal Ca^{2+} levels by partial inhibition of N-type Ca^{2+} currents and by reducing the release of Ca^{2+} from intraneuronal stores. In addition, it partially reverses the reductions in GABA- and glycine-gated currents induced by zinc and β -carbolines. Furthermore, the interaction between Levetiracetam and the synaptic vesicle protein 2A seems to contribute to the drug's antiepileptic mechanism of action.

Pharmacokinetics:

Absorption of Levetiracetam is rapid, with peak plasma concentrations occurring in about an hour following oral administration in fasted subjects. The oral bioavailability of Levetiracetam tablets is 100% and the tablets and oral solution are bioequivalent in rate and extent of absorption. Food does not affect the extent of absorption of Levetiracetam. Steady state is achieved after 2 days of multiple twice-daily dosing. Levetiracetam and its major metabolite are less than 10% bound to plasma proteins. Levetiracetam plasma half-life in adults is about 7 hours. Levetiracetam is not extensively metabolized in humans. The major metabolic pathway is the enzymatic hydrolysis of the acetamide group, which produces inactive metabolite. About 66% of the administered dose is excreted unchanged by renal excretion.

Indications:

Clonic is indicated for the treatment of partial-onset seizures in patients 1 month of age and older.

Clonic is indicated as adjunctive therapy in the treatment of:

- Myoclonic seizures in patients 12 years of age and older with juvenile myoclonic epilepsy.
- Primary generalized tonic-clonic seizures in patients 6 years of age and older with idiopathic generalized epilepsy.

Contraindications:

Hypersensitivity to the active substance or other pyrrolidone derivatives or to any of the excipients.

Warnings & Precautions:

- It may be necessary to adjust the dose in patients with renal impairment.
- Behavioral abnormalities including psychotic symptoms, suicidal ideation, irritability, and aggressive behavior have been observed; Patients should be monitored for psychiatric signs and symptoms.
- Suicidal Behavior and Ideation: Monitor patients for new or worsening depression, suicidal thoughts/behavior, and/or unusual changes in mood or behavior.

- If Levetiracetam must be discontinued, it is recommended that it be discontinued (withdrawn) gradually.

Pregnancy & Lactation:

Pregnancy: A large amount of post-marketing data on pregnant women exposed to Levetiracetam monotherapy do not suggest an increase in the risk for major congenital malformations. Levetiracetam can be used during pregnancy, if after careful assessment it is considered clinically needed. In such case, the lowest effective dose is recommended. Physiological changes during pregnancy may affect Levetiracetam concentration.

Lactation: Levetiracetam is excreted in mother milk. Therefore, breast-feeding is not recommended.

Driving & Using Machines:

Levetiracetam has minor or moderate influence on the ability to drive and use machines. Therefore, caution is recommended in those patients when performing skilled tasks, e.g. driving vehicles or operating machinery.

Drug Interactions:

- Concomitant use of Levetiracetam and methotrexate has been reported to reduce methotrexate clearance, resulting in an increase/prolonged of methotrexate blood concentrations to potentially toxic levels.

- Laxatives: Macrogol should not be taken orally for one hour before and for one hour after taking Levetiracetam.

Side Effects:

Most common adverse reactions (incidence $\geq 5\%$ than placebo) include:

Adult patients: Somnolence, asthenia, infection and dizziness.

Pediatric patients: Fatigue, aggression, nasal congestion, decreased appetite, and irritability.

Dosage & Administrations:

- Use Clonic syrup for pediatric patients with body weight ≤ 20 kg.
- For pediatric patients, use weight-based dosing for the syrup with a calibrated measuring device (not a teaspoon or tablespoon).

Partial-Onset Seizures (monotherapy or adjunctive therapy):

- From 1 Month to < 6 Months: 7 mg/kg twice daily; increase by 7 mg/kg twice daily every 2 weeks to recommended dose of 21 mg/kg twice daily.
- From 6 Months to < 4 Years: 10 mg/kg twice daily; increase by 10 mg/kg twice daily every 2 weeks to recommended dose of 25 mg/kg twice daily.
- From 4 Years to < 16 Years: 10 mg/kg twice daily; increase by 10 mg/kg twice daily every 2 weeks to recommended dose of 30 mg/kg twice daily.
- Adults 16 Years and Older: 500 mg twice daily; increase by 500 mg twice daily every 2 weeks to a recommended dose of 1500 mg twice daily.

Myoclonic Seizures in Adults and Pediatric Patients 12 Years and Older: 500 mg twice daily; increase by 500 mg twice daily every 2 weeks to recommended dose of 1500 mg twice daily.

Primary Generalized Tonic-Clonic Seizures:

- From 6 Years to < 16 Years: 10 mg/kg twice daily, increase in increments of 10 mg/kg twice daily every 2 weeks to recommended dose of 30 mg/kg twice daily.
- Adults 16 Years and Older: 500 mg twice daily, increase by 500 mg twice daily every 2 weeks to recommended dose of 1500 mg twice daily.

Adult Patients with Impaired Renal Function:

Dose adjustment is recommended, based on the patient's estimated creatinine clearance.

Dosing Adjustment Regimen for Adult Patients with Renal Impairment:

Creatinine clearance (ml/min/1.73m ²)	Dosage regimen
≥ 80	500 - 1500 mg twice daily.
50-79	500 - 1000 mg twice daily.
30-49	250 - 750 mg twice daily.
< 30	250 - 500 mg twice daily.
End stage renal disease patients undergoing dialysis ⁽¹⁾	500 - 1000 mg once daily ⁽¹⁾ .

⁽¹⁾ Following dialysis, a 250 to 500 mg supplemental dose is recommended.

Overdose:

Symptoms: Somnolence, agitation, aggression, depressed level of consciousness, respiratory depression and coma were observed with Levetiracetam overdoses.

Treatment: After an acute overdose, the stomach may be emptied by gastric lavage or by induction of emesis. There is no specific antidote for Levetiracetam. Treatment of an overdose will be symptomatic and may include haemodialysis.

Storage:

Keep out of reach of children. Store below 30°C.

Packaging:

Tablets:

Each Clonic (250-500) Carton Box contains 20 Film Coated Tablets in two blister strips.

Each Clonic 1000 Carton Box contains 10 Film Coated Tablets in a blister strip.

Syrup:

Each Clonic Syrup Carton Box contains Amber Glass Bottle of 100 ml.

