

Lamotrigine (Lamictal)

Lamotrigine (Lamictal) is a newer anticonvulsant medication that acts upon sodium channels to decrease seizure activity. This drug is indicated for seizures and long-term maintenance therapy for bipolar disorder. Side effects include visual problems, nausea, vomiting, headaches, life-threatening rashes, and aseptic meningitis. Screening for suicide risk is important because lamotrigine may increase the risk of suicidal thoughts and behaviors.



PLAY PICMONIC

Mechanism

Blocks Na⁺ Channels

Block-guy blocking Salt-shaker Channel

This drug blocks sodium channels and decreases the release of glutamate, an excitatory neurotransmitter. Lamotrigine binds to sodium channels and prolongs inactivation to decrease high-frequency neuronal discharge. The decrease of neuronal excitability leads to a reduction of seizure activity.

Indications

Seizures

Caesar

As a sodium channel blocker, Lamotrigine decreases seizure activity. This drug is indicated to treat partial seizures, generalized tonic-clonic seizures, and absence seizures.

Bipolar Disorder

Bi-polar-bear

Long-term maintenance lamotrigine therapy decreases the manic and depressive symptoms associated with bipolar disorder. This drug acts as a mood stabilizer and delays relapses of depression. Important to note that if augmenting this medication with valproic acid for treatment resistant bipolar, use half dose of lamotrigine in the presence of valproate, as valproate can double lamotrigine levels.

Side Effects

Diplopia

Double-vision of eyes

Diplopia (double vision) and blurred vision are common side effects of lamotrigine. Instruct the patient to report sudden vision problems to the healthcare provider for a possible medication change.

Stevens-Johnson Syndrome

Steve-Johns

Lamotrigine may cause life-threatening rashes, such as Stevens-Johnson Syndrome (SJS) and toxic epidermal necrolysis (TEN). Minimize the risk of developing a serious rash by initiating low doses and gradually increase to therapeutic levels. Immediately stop lamotrigine administration if a rash develops.

Headache

Head-egg-lump

Headache and dizziness are common side effects of Lamotrigine. To minimize these neurological side effects, initiate therapy with low doses.

Aseptic Meningitis

A-septic-tank Men-in-tights

Although rare, aseptic meningitis is a serious complication associated with lamotrigine. Instruct the patient to contact the healthcare provider immediately if experiencing symptoms, such as headache, fever, stiff neck, vomiting, drowsiness, or confusion.

Nausea and Vomiting

Vomit

Lamotrigine may cause temporary nausea or vomiting and lead to a decrease in appetite. Consuming a snack prior to the medication may help prevent these side effects.

Considerations

Screen for Suicide Risk

Screen-door Suicide-jumper

Patients receiving lamotrigine may experience suicidal thoughts and behaviors and should be screened for suicide risk. Monitor the patient for increased anxiety, agitation, hostility, depression, and mania. Use caution with lamotrigine alongside antidepressants such as TCAs, MAOIs, as these can destabilize mood in some patients, including induction of rapid cycling or suicidal ideation.
