

# Neurica

## Pregabalin

### Presentation:

**Neurica 50:** Each capsule contains 50 mg pregabalin in packs of 10, 14 & 56 capsules.

**Neurica 75:** Each capsule contains 75 mg pregabalin in packs of 10, 14 & 56 capsules.

**Neurica 150:** Each capsule contains 150 mg pregabalin in packs of 28, 50, 56 & 60 capsules.

**Neurica 300:** Each capsule contains 300 mg pregabalin in packs of 28, 50, 56 & 60 capsules.

**Note:** Not all pack sizes are available in all countries.

**Excipients:** Mannitol, Maize starch, Talc.

**Pharmaceutical form:** Capsules for oral use

**Pharmacotherapeutic group:** Antiepileptic. ATC: N03AX16

### Therapeutic indications:

**Neurica** is indicated for the treatment of peripheral and central neuropathic pain in adults.

**Neurica** is indicated as adjunctive therapy in adults with partial seizures with or without secondary generalisation.

**Neurica** is indicated for the treatment of Generalized Anxiety Disorder (GAD) in adults.

**Neurica** is indicated for the treatment of Fibromyalgia.

### Posology and method of administration:

**Neurica** may be taken with or without food. The dose range is 150 to 600 mg per day given in either two or three divided doses.

**Neuropathic pain:** Pregabalin treatment can be started at a dose of 150 mg per day given as two or three divided doses. Based on individual patient response and tolerability, the dose may be increased to 300 mg per day after an interval of 3 to 7 days, and if needed, to a maximum dose of 600 mg per day after an additional 7 day interval.

**Epilepsy:** Pregabalin treatment can be started with a dose of 150 mg per day given as two or three divided doses. Based on individual patient response and tolerability, the dose may be increased to 300 mg per day after 1 week. The maximum dose of 600 mg per day may be achieved after an additional week.

**Generalised Anxiety Disorder:** The dose range is 150 to 600 mg per day given as two or three divided doses. The need for treatment should be reassessed regularly.

Pregabalin treatment can be started with a dose of 150 mg per day. Based on individual patient response and tolerability, the dose may be increased to 300 mg per day after 1 week. Following an additional week the dose may be increased to 450 mg per day. The maximum dose of 600 mg per day may be achieved after an additional week.

**Management of Fibromyalgia:** The recommended dose of **Neurica** for fibromyalgia is 300 to 450 mg/day. Begin dosing at 75mg two times a day (150 mg/day). The dose may be increased to 150 mg two times a day (300mg/day) within 1 week based on efficacy and tolerability. Patients who do not experience sufficient benefit with 300 mg/day may be further increased to 225 mg two times a day (450 mg/day). Although **Neurica** was also studied at 600 mg/day, there is no evidence that this dose confers additional benefit and this dose was less well tolerated. In view of the dose-dependent adverse reactions, treatment with doses above 450 mg/day is not recommended. Because **Neurica** is eliminated primarily by renal excretion, adjust the dose in patients with reduced renal function.

**Discontinuation of Pregabalin:** In accordance with current clinical practice, if pregabalin has to be discontinued it is recommended this should be done gradually over a minimum of 1 week independent of the indication.

**Patients with renal impairment:** Dose reduction in patients with compromised renal function must be individualised according to creatinine clearance (CL<sub>cr</sub>), as indicated in Table 1 determined using the following formula:

$$CL_{cr}(\text{mL/min}) = \left[ \frac{1.23 \times [40 - \text{age (years)}] \times \text{weight (kg)}}{\text{serum creatinine } (\mu\text{mol/L})} \right] \times 0.85 \text{ for female patients}$$

Pregabalin is removed effectively from plasma by haemodialysis (50% of drug in 4 hours). For patients receiving haemodialysis, the pregabalin daily dose should be adjusted based on renal function. In addition to the daily dose, a supplementary dose should be given immediately following every 4-hour haemodialysis treatment. Pregabalin dose adjustment based on renal function

Creatinine clearance (CL <sub>cr</sub> ) (mL/min)	Total pregabalin daily dose *		Dose regimen
	Starting dose (mg/day)	Maximum dose (mg/day)	
≥ 60	150	600	BID or TID
≥ 30 < 60	75	300	BID or TID
≥ 15 < 30	25 – 50	150	Once daily or BID
< 15	25	75	Once daily
Supplementary dosage following haemodialysis (mg)			
25	100		Single dose+

TID = Three divided doses. BID = Two divided doses

\* Total daily dose (mg/day) should be divided as indicated by dose regimen to provide mg/dose

+ Supplementary dose is a single additional dose

### Use in patients with hepatic impairment:

No dose adjustment is required for patients with hepatic impairment.

### Paediatric population:

The safety and efficacy of **Neurica** in children below the age of 12 years and in adolescents (12-17 years of age) have not been established.

### Use in the elderly (over 65 years of age):

Elderly patients may require a dose reduction of pregabalin due to a decreased renal function.

### Contra-indications:

Hypersensitivity to Pregabalin or to any of other excipients. Angioedema and hypersensitivity reactions have occurred in patients receiving pregabalin therapy.

### Warnings and Precautions for use:

- Serious breathing difficulties may occur in patients using pregabalin who have respiratory risk factors. These include the use of opioid pain medicines and other drugs that depress the central nervous system, and conditions such as chronic obstructive pulmonary disease that reduce lung function. The elderly are also at higher risk.
- Diabetic patients who gain weight on pregabalin treatment may need to adjust hypoglycaemic medicinal products.
- Reports of hypersensitivity in patients shortly after initiation of treatment with pregabalin. Adverse reactions included skin redness, blisters, hives, rash, dyspnea, and wheezing. Discontinue pregabalin immediately in patients with these symptoms.
- Reports of angioedema in patients during initial and chronic treatment with pregabalin. Specific symptoms included swelling of the face, mouth (tongue, lips and gums), and neck (throat and larynx). There were reports of life-threatening angioedema with respiratory compromise requiring emergency therapy. Discontinue pregabalin immediately in patients with these symptoms.

- Exercise caution when prescribing pregabalin to patients who have had a previous episode of angioedema. In addition, patients who are

taking other drugs associated with angioedema (e.g., angiotensin converting enzyme inhibitors (ACE-inhibitors)) may be at increased risk of developing angioedema.

- Pregabalin treatment has been associated with dizziness and somnolence, which could increase the occurrence of accidental injury (fall) in the elderly population. Loss of consciousness, confusion and mental impairment. Therefore, patients should be advised to exercise caution until they are familiar with the potential effects of the medicinal product.
- Visual adverse reactions have also been reported, including loss of vision, visual blurring or other changes of visual acuity, many of which were transient. Discontinuation of pregabalin may result in resolution or improvement of these visual symptoms.

- There are insufficient data for the withdrawal of concomitant antiepileptic medicinal products once seizure control with pregabalin in the add-on situation has been reached, in order to reach monotherapy on pregabalin.
- **Withdrawal symptoms:** After discontinuation of short-term and long-term treatment with pregabalin withdrawal symptoms have been observed in some patients. The following events have been mentioned: insomnia, headache, nausea, anxiety, diarrhoea, flu syndrome, nervousness, depression, pain, convulsion, hyperhidrosis and dizziness. The patient should be informed about this at the start of the treatment. Convulsions, including status epilepticus and grand mal convulsions, may occur during pregabalin use or shortly after discontinuing pregabalin. Concerning discontinuation of long-term treatment of pregabalin there are no data of the incidence and severity of withdrawal symptoms in relation to duration of use and dose of pregabalin.

- **Abrupt or Rapid Discontinuation:** Following abrupt or rapid discontinuation of pregabalin, some patients reported symptoms including insomnia, nausea, headache, and diarrhea. Taper pregabalin gradually over a minimum of 1 week rather than discontinuing the drug abruptly.
- There have been post-marketing reports of congestive heart failure in some patients receiving pregabalin. These reactions are mostly seen in elderly cardiovascular compromised patients during pregabalin treatment for a neuropathic indication. Pregabalin should be used with caution in these patients. Discontinuation of pregabalin may resolve the reaction.
- In the treatment of central neuropathic pain due to spinal cord injury the incidence of adverse reactions in general, central nervous system adverse reactions and especially somnolence was increased. This may be attributed to an additive effect due to concomitant medicinal products (e.g. anti-spasticity agents) needed for this condition. This should be considered when prescribing pregabalin in this condition.

- Anyone considering prescribing pregabalin or any other AED must balance the risk of suicidal thoughts or behavior with the risk of untreated illness. Epilepsy and many other illnesses for which AEDs are prescribed are themselves associated with morbidity and mortality and an increased risk of suicidal thoughts and behavior. Should suicidal thoughts and behavior emerge during treatment, the prescriber needs to consider whether the emergence of these symptoms in any given patient may be related to the illness being treated. Therefore patients should be monitored for signs of suicidal ideation and behaviours and appropriate treatment should be considered. Patients (and caregivers of patients) should be advised to seek medical advice should signs of suicidal ideation or behaviour emerge.

- Reports of events related to reduced lower gastrointestinal tract function (e.g., intestinal obstruction, paralytic ileus, constipation) when pregabalin was co-administered with medications that have the potential to produce constipation, such as opioid analgesics. When pregabalin and opioids will be used in combination, measures to prevent constipation may be considered (especially in female patients and elderly).

- Cases of abuse have been reported. Caution should be exercised in patients with a history of substance abuse and the patient should be monitored for symptoms of pregabalin abuse.
- Cases of encephalopathy have been reported, mostly in patients with underlying conditions that may precipitate encephalopathy.
- Pregabalin treatment may cause peripheral edema. In short-term trials of patients without clinically significant heart or peripheral vascular disease, there was no apparent association between peripheral edema and cardiovascular complications such as hypertension or congestive heart failure. Peripheral edema was not associated with laboratory changes suggestive of deterioration in renal or hepatic function. Higher frequencies of weight gain and peripheral edema were observed in patients taking both pregabalin and a thiazolidinedione antidiabetic agent compared to patients taking either drug alone.

- **Driving and using machines:** **Neurica** may have minor or moderate influence on the ability to drive and use machines. **Neurica** may cause dizziness and somnolence and therefore may influence the ability to drive or use machines. Patients are advised not to drive, operate complex machinery or engage in other potentially hazardous activities until it is known whether this medicinal product affects their ability to perform these activities.

- **Weight Gain:** **Neurica** treatment may cause weight gain.
- **PK Interpol Prolongation:** **Neurica** treatment was associated with PK interval prolongation.

### Use During Pregnancy and Lactation:

As the potential risk for humans is unknown, effective contraception must be used in women of child bearing potential. **Pregnancy:** There are no adequate data from the use of pregabalin in pregnant women. Studies in animals have shown reproductive toxicity. The potential risk for humans is unknown, pregabalin should not be used during pregnancy unless clearly necessary.

**Lactation:** It is not known if pregabalin is excreted in the breast milk of humans; however, it is present in the milk of rats. Therefore, breast-feeding is not recommended during treatment with pregabalin. **Fertility:** There are no clinical data on the effects of pregabalin on female fertility. In a clinical trial to assess the effect of pregabalin on sperm motility, healthy male subjects were exposed to pregabalin at a dose of 600 mg/day. After 3 months of treatment, there were no effects on sperm motility. A fertility study in female rats has shown adverse reproductive effects. Fertility studies in male rats have shown adverse reproductive and developmental effects. The clinical relevance of these findings is unknown.

### Drug Interactions:

Pregabalin is predominantly excreted unchanged in the urine, undergoes negligible metabolism in humans (<2% of a dose recovered in urine as metabolites), does not inhibit drug metabolism in vivo, and is not bound to plasma proteins, it is unlikely to produce, or be subject to, pharmacokinetic interactions. Accordingly, in vivo studies no clinically relevant pharmacokinetic interactions were observed between pregabalin and phenytoin, carbamazepine, valproic acid, lamotrigine, gabapentin, lorazepam, oxycodone or ethanol. Population pharmacokinetic analysis indicated that oral antidiabetics, diuretics, insulin, phenobarbital, tiagabine and topiramate had no clinically significant effect on pregabalin clearance. Co-administration of pregabalin with the oral contraceptives norethisterone and ethinyl gestodil does not influence the steady-state pharmacokinetics of either substance. Pregabalin may potentiate the effects of ethanol and lorazepam. In controlled clinical trials, multiple oral doses of pregabalin co-administered with oxycodone, lorazepam, or ethanol did not result in clinically important effects on respiration. In the postmarketing experience, there are reports of respiratory failure and

coma in patients taking pregabalin and other CNS depressant medicinal products. Pregabalin appears to be additive in the impairment of cognitive and gross motor function caused by oxycodone.

### Undesirable effects:

The most commonly reported adverse reactions were dizziness and somnolence. Adverse reactions were usually mild to moderate in intensity. In all controlled studies, the discontinuation rate due to adverse reactions was 12% for patients receiving pregabalin and 5% for patients receiving placebo. The most common adverse reactions resulting in discontinuation from pregabalin treatment groups were dizziness and somnolence.

**Common:** Dizziness, somnolence, appetite increased, euphoric mood, confusion, irritability, libido decreased, disorientation, insomnia, ataxia, coordination abnormal, tremor, dysarthria, memory impairment, disturbance in attention, paraesthesia, sedation, balance disorder, lethargy, vision blurred, diplopia, weight increased, gait abnormal, feeling drunk, fatigue, oedema peripheral, edema, Erectile dysfunction, vertigo, vomiting, dry mouth, constipation, flatulence.

**Uncommon:** Nasopharyngitis, anorexia, hypoglycaemia, hallucination, panic attack, restlessness, agitation, depression, depressed mood, mood swings, depersonalisation, word finding difficulty, abnormal dreams, libido increased, anorgasmia, apathy, syncope, stupor, myoclonus, psychomotor hyperactivity, ageusia, dyskinisia, dizziness postural, intention tremor, nystagmus, cognitive disorder, speech disorder, hyperreflexia, hypoaesthesia, amnesia, hyperaesthesia, burning sensation, visual disturbance, eye swelling, visual field defect, visual acuity reduced, eye pain, asthenopia, dry eye, lacrimation increased, blood creatine phosphokinase increased, alanine aminotransferase increased, aspartate aminotransferase increased, platelet count decreased, fall, chest tightness, asthenia, thirst, pain, feeling abnormal, chills, ejaculation delayed, sexual dysfunction, urinary incontinence, dysuria, muscle throbbing, joint swelling, muscle cramp, myalgia, arthralgia, back pain, pain in limb, muscle stiffness, rash papular, hyperhidrosis, tachycardia, atrioventricular block first degree, abdominal distension, gastroesophageal reflux disease, salivary hypersecretion, hypoaesthesia oral, hyperacusis, flushing, hot flashes, hypotension, hypertension, dyspnoea, nasal dryness.

**Rare:** Neutropenia, disinhibition, elevated mood, hypokinesia, parosmia, dysgraphia, peripheral vision loss, oscillopsia, altered visual depth perception, photopsia, eye irritation, mydriasis, strabismus, visual brightness, blood glucose increased, blood potassium decreased, white blood cell count decreased, blood creatinine increased, weight decreased, sinus tachycardia, sinus bradycardia, sinus arrhythmia, peripheral coldness, epistaxis, throat tightness, cough, nasal congestion, rhinitis, sneezing, ascites, pancreatitis, dysphagia, urticaria, cold sweat, generalised edema, paresthesia, amenorrhoea, breast discharge, breast pain, dysmenorrhoea, hypertrophic breast, renal failure, oliguria, rhabdomyolysis, cervical spasm, neck pain.

**Frequency not known:** Hypersensitivity, angioedema, allergic reaction, aggression, loss of consciousness, mental impairment, convulsions, headache, malaise, vision loss, keratitis, congestive heart failure, QT prolongation, pulmonary oedema, swollen tongue, diarrhoea, nausea, Stevens Johnson syndrome, pruritus, face oedema, urinary retention.

After discontinuation of short-term and long-term treatment with pregabalin withdrawal symptoms have been observed in some patients. The following reactions have been mentioned: insomnia, headache, nausea, anxiety, diarrhoea, flu syndrome, convulsions, nervousness, depression, pain, hyperhidrosis and dizziness. The patient should be informed about this at the start of the treatment. Concerning discontinuation of long-term treatment of pregabalin there are no data of the incidence and severity of withdrawal symptoms in relation to duration of use and dose of pregabalin.

### Reporting of suspected adverse reactions

Tel: 06-5632000

Website: www.jfda.jo

Smart phones application: Jordan fda

Paper reporting form: yellow card

### Overdose:

In overdoses up to 15 g, no unexpected adverse reactions were reported.

The most commonly reported adverse reactions observed when pregabalin was taken in overdose included somnolence, confusion, state, agitation, and restlessness. Treatment of pregabalin overdose should include general supportive measures and may include haemodialysis if necessary.

### Pharmacodynamic Properties:

**Neurica(Pregabalin)** belongs to antiepileptics group. Pregabalin binds to an auxiliary subunit (α-2δ protein) of voltage-gated calcium channels in the central nervous system; Pregabalin decreases the release of neurotransmitters such as glutamate, noradrenaline, and substance P. Pregabalin increases neuronal GABA levels by producing a dose-dependent increase in glutamic acid decarboxylase activity. Glutamic acid decarboxylase (GAD) is the enzyme that converts the excitatory neurotransmitter glutamate into the inhibitory GABA in a single step.

### Pharmacokinetic properties

**Absorption:** Pregabalin is rapidly absorbed when administered in the fast state, with peak plasma concentration occurring within 1 hour following both single and multiple dose administration. Pregabalin oral bioavailability is estimated to be 90% and is independent of dose. Following repeated administration, steady state is achieved within 24 to 48 hours. The rate of Pregabalin absorption is decreased when given with food resulting in a decreased in C<sub>max</sub> by approximately 25 – 30 % and a delay in T<sub>max</sub> to approximately 2.5 hours. However, administration of Pregabalin with food has no clinically significant effect on the extent of Pregabalin absorption.

**Distribution:** The apparent volume of distribution of Pregabalin following oral administration is approximately 0.56 L/kg. Pregabalin is not bound to plasma proteins

**Metabolism:** Pregabalin undergoes negligible metabolism in humans. Following a dose of radiolabelled Pregabalin, approximately 98% of the radioactivity recovered in the urine was unchanged Pregabalin.

**Elimination:** Pregabalin is eliminated from the systemic circulation primarily by renal excretion as unchanged drug. Pregabalin mean elimination half-life is 6.3 hours. Pregabalin plasma clearance and renal clearance are directly proportionate to creatinine clearance. Dosage adjustment in patients with reduced renal function or undergoing haemodialysis is necessary.

### Special precautions for storage:

Store below 30°C.

Rev. Date: 07/2024

I-Neurica-NBC-LMD-R3/AE

This is a medication  
• A medication is a product which affects your health, and its consumption contrary to instructions is dangerous for you.  
• Follow strictly the doctor's prescription, the method of use and the instructions of the pharmacist who dispensed the medication.  
• The doctor and the pharmacist are experts in medicine, its benefits and risks.  
• Do not by yourself interrupt the period of treatment prescribed to you.  
• Do not repeat the same prescription without consulting your doctor.  
• Keep medication out of the reach of children.

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