

DynaGab

(Pregabalin) Capsules BP

Capsules 50mg, 75mg, 100mg & 150mg

ڈائنا گیب

(پری گیبالین) کیپسولز بی بی
کپسول 50، 75، 100، 150، 100، 150، 100، 150

QUALITATIVE & QUANTITATIVE COMPOSITION

DynaGab (Pregabalin) is available for oral administration as:

DynaGab Capsules 50mg
Each hard gelatin capsule contains:
Pregabalin.....50mg
Finished Product Specs: BP.

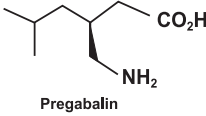
DynaGab Capsules 75mg
Each hard gelatin capsule contains:
Pregabalin.....75mg
Finished Product Specs: BP.

DynaGab Capsules 100mg
Each hard gelatin capsule contains:
Pregabalin.....100mg
Finished Product Specs: BP.

DynaGab Capsules 150mg
Each hard gelatin capsule contains:
Pregabalin.....150mg
Finished Product Specs: BP.

DESCRIPTION

DynaGab (Pregabalin) is an analogue of the neurotransmitter gamma-aminobutyric acid (GABA). It has analgesic and anticonvulsant activity. Chemically Pregabalin is described as (S)-3-(aminomethyl)-5-methylhexanoic acid. The molecular formula is $C_8H_{17}NO_2$ and the structural formula is:



CLINICAL PHARMACOLOGY

Mechanism of Action

Pregabalin reduces neuronal calcium currents by binding to the α -2-delta subunit of voltage gated calcium channels in CNS tissues and this particular mechanism may be responsible for effects in neuropathic pain, anxiety and other pain syndromes. Pregabalin does not block sodium channels, is not active at opiate receptors, and does not alter cyclooxygenase enzyme activity. It is inactive at serotonin and dopamine receptors and does not inhibit dopamine, serotonin and noradrenaline reuptake.

Pharmacokinetics

Absorption:

Following oral administration of pregabalin capsules under fasting conditions, peak plasma concentrations occur within 1.5 hours. Pregabalin oral bioavailability is $\geq 90\%$ and is independent of dose. Following single (25 to 300mg/day) and multiple-dose (75 to 900mg/day) administration, maximum plasma concentrations (C_{max}) and area under the plasma concentration-time curve (AUC) values increase linearly. Following repeated administration, steady state is achieved within 24 to 48 hours.

Distribution:

Pregabalin does not bind to plasma proteins. The apparent volume of distribution of pregabalin following oral administration is approximately 0.5L/kg.

Metabolism:

Pregabalin undergoes negligible metabolism in humans.

Elimination:

About 98% of the dose is excreted in the urine as unchanged drug. The N-methylated derivative of pregabalin, found in urine, accounts for 0.3% of the dose. Pregabalin mean elimination half-life is 6.3 hours and is eliminated from the systemic circulation primarily by renal excretion as unchanged drug. Pregabalin is removed by hemodialysis.

Special Populations

Renal Impairment

Pregabalin plasma clearance and renal clearance are directly proportional to creatinine clearance. Pregabalin clearance is reduced in patients with impaired renal function. Dose adjustments are required in patients with renal impairment ($CL_{cr} \leq 60$ mL/min). Pregabalin is effectively removed by hemodialysis (following 4 hours hemodialysis treatment, plasma pregabalin concentrations are reduced by approximately 50%). Dose adjustments are required for patients on hemodialysis.

Elderly (Over 65 years of age)

Pregabalin clearance tends to decrease with increasing age. This decrease in pregabalin oral clearance is consistent with decreases in creatinine clearance associated with increasing age. Reduction of pregabalin dose may be required in patients who have age related compromised renal function.

THERAPEUTIC INDICATIONS

DynaGab (Pregabalin) is indicated:

- For the management of neuropathic pain associated with diabetic peripheral neuropathy.
- For the management of postherpetic neuralgia.
- For the treatment of pain associated with spinal cord injury.
- As adjunctive therapy in adults with partial seizures with or without secondary generalization.

- For the treatment of Generalized Anxiety Disorder (GAD) in adults.
- For the treatment of fibromyalgia syndrome (FMS).

DOSAGE AND ADMINISTRATION

DynaGab (Pregabalin) is given orally with or without food. When discontinuing DynaGab (Pregabalin), taper gradually over a minimum of 1 week irrespective of the indication.

Neuropathic Pain Associated with Diabetic Peripheral Neuropathy

DynaGab (Pregabalin) treatment can be started at a dose of 150mg per day, given as 2-3 divided doses. Based on individual patient response and tolerability, the dosage may be increased to 300mg per day, given as 2 divided doses, after an interval of 3 to 7 days, and if needed, to a maximum dose of 600mg per day after an additional 7 days interval.

Postherpetic Neuralgia

The recommended dose of DynaGab (Pregabalin) is 75mg to 150mg two times a day or 50mg to 100mg three times a day (150mg to 300mg/day). Dosing should begin at 75mg two times a day or 50mg three times a day (150mg/day) and may be increased to 300mg/day within 1 week based on efficacy and tolerability. Patients who do not experience sufficient pain relief following 2 to 4 weeks of treatment with 300mg/day and who are able to tolerate DynaGab (Pregabalin), may be treated with up to 300mg two times a day (600mg/day).

Neuropathic Pain Associated with Spinal Cord Injury

The recommended starting dose is 75mg two times a day (150mg/day). The dose may be increased to 150mg two times a day (300mg/day) within 1 week based on efficacy and tolerability. Patients who do not experience sufficient pain relief following 2 to 4 weeks of treatment with 300mg/day and who are able to tolerate DynaGab (Pregabalin), may be treated with up to 300mg two times a day (600mg/day).

Adjunctive therapy in adults with partial seizure with or without secondary generalization

DynaGab (Pregabalin) treatment can be started with a dose of 150mg per day given as 2-3 divided doses. Based on individual patient response and tolerability, the dosage may be increased to 300mg per day after 1 week. The maximum dosage of 600mg per day may be achieved after an additional week. Pregabalin does not alter the plasma concentrations of other commonly used anti-convulsant drugs. Similarly, commonly used anti-convulsant drugs do not alter plasma concentrations of pregabalin.

Generalized Anxiety Disorder

The dose range is 150mg to 600mg/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 150mg/day given as 2-3 divided doses. Based on individual patient response and tolerability, the dosage may be increased to 300mg/day after 1 week. Following an additional week the dosage may be increased to 450mg/day. The maximum dosage of 600mg/day may be achieved after an additional week.

Fibromyalgia Syndrome (FMS)

The recommended dose of DynaGab (Pregabalin) for fibromyalgia is 300 to 450mg/day. Dosing should begin at 75mg two times a day or 50mg three times a day (150mg/day) and may be increased to 300mg/day within 1 week based on efficacy and tolerability. Patients who do not experience sufficient benefit with 300mg/day may be further increased to 225mg two times a day (450mg/day).

Renally Impaired Patients

As pregabalin clearance is directly proportional to creatinine clearance, dosage reduction in patients with compromised renal function must be individualized according to creatinine clearance, as indicated in table below determined using the following formula:

$$CL_{cr} \text{ (mL/min)} = \frac{\text{Weight (kg)} \times (140 - \text{age})}{72 \times \text{serum creatinine (mg/dL)}} \times (0.85 \text{ for female patients})$$

Creatinine Clearance (CL_{cr}) (mL/min)	Total Pregabalin daily Dose*		Dose Regimen
	Starting dose (mg/day)	Maximum dose (mg/day)	
≥ 60	150	600	BID or TID
$\geq 30 < 60$	75	300	BID or TID
$\geq 15 < 30$	25- 50	150	Once Daily or BID
< 15	25	75	Once Daily
Supplementary dosage following hemodialysis (mg)			
	25	100	Single dose**
* Total daily dose (mg/day) should be divided as indicated by dose regimen to provide mg/dose.			
** Supplementary dose is a single additional dose.			

ADVERSE REACTIONS

Very common: Dizziness, drowsiness and somnolence.

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

Uncommon: Nasopharyngitis, anorexia, hypoglycemia, 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, dyskinesia, postural dizziness, intention tremor, nystagmus, cognitive disorder, speech disorder, hyporeflexia, hypoaesthesia, amnesia, hyperaesthesia, burning sensation, visual disturbance, eye swelling, visual field defect, visual acuity reduced, eye pain, asthenopia, dry eye, lacrimation increased, hyperacusis, tachycardia, atrioventricular block first degree, flushing, hot flushes, hypotension, hypertension, dyspnoea, nasal dryness, abdominal distension, gastroesophageal reflux disease, salivary hypersecretion, hypoaesthesia oral, rash papular, hyperhidrosis, muscle twitching, joint swelling, muscle cramp, myalgia, arthralgia, back pain, pain in limb, muscle stiffness, urinary incontinence, dysuria, ejaculation delayed, sexual dysfunction, chest tightness, asthenia, thirst, pain, feeling abnormal chills, blood creatine phosphokinase increased, alanine aminotransferase increased, aspartate aminotransferase increased and platelet count decreased.

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

CONTRAINDICATIONS

- Pregabalin is contraindicated in patients with a known hypersensitivity to pregabalin or any other component of the product.
- Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

PRECAUTIONS

Withdrawal of Antiepileptic Drugs (AEDs)

As with all AEDs, pregabalin should be withdrawn gradually to minimize the potential of increased seizure frequency in patients with seizure disorders. If pregabalin is discontinued this should be done gradually over a minimum of 1 week.

Angioedema

Pregabalin should be discontinued immediately if symptoms of angioedema, such as facial, perioral or upper airway swelling occur.

Weight Gain

Pregabalin associated weight gain is related to dose and duration of exposure. Some diabetic patients who gain weight on pregabalin treatment may need to adjust hypoglycemic medications.

Discontinuation

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, diarrhea, flu syndrome, nervousness, depression, pain, sweating, and dizziness.

Creatinine Kinase Elevation

Pregabalin should be discontinued if myopathy is diagnosed or suspected or if markedly elevated creatine kinase levels occur.

Congestive Heart Failure

There have been 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.

Alcohol

Patients should be told to avoid consuming alcohol while on pregabalin, as it may potentiate the impairment of motor skills and sedation due to alcohol.

Effects on Ability to Drive and Use Machines and Injuries

Pregabalin may cause dizziness and somnolence and therefore may have an influence on the ability to drive or use machines or may increase the occurrence of accidental injuries especially in the elderly population.

Pediatrics

Pregabalin is not recommended for use in children below the age of 12 years and adolescents (12-17 years) due to insufficient data on safety and efficacy.

Pregnancy

There are no adequate and well-controlled studies in pregnant women. Pregabalin should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers

It is not known whether pregabalin is excreted into human milk. Because many drugs are excreted in human milk, caution should be exercised when pregabalin is administered to a nursing woman.

Drug Interactions:

- Patients who require concomitant treatment with CNS depressants such as opiates or benzodiazepines should be informed that they may experience additive CNS side effects such as somnolence.
- Pregabalin may potentiate the effects of ethanol and lorazepam. There are also some reports of respiratory failure and coma in patients taking pregabalin and other CNS depressant medications.
- Pregabalin appears to be additive in the impairment of cognitive and gross motor function caused by oxycodone.

OVERDOSAGE

The most common adverse reactions observed when pregabalin was taken in overdose include somnolence, confusional state, agitation and restlessness. In rare occasions, cases of coma have been reported. Treatment of pregabalin overdose should include general supportive measures and may include hemodialysis if necessary.

STORAGE

Store below 30°C.

Protect from heat, light and moisture.

To be sold on prescription of registered medical practitioner only.

30°C سے کم درجہ حرارت پر رکھیں۔

دھوپ، گرمی اور نمی سے بچائیں۔

صرف رجسٹرڈ ڈاکٹر کے نسخہ پر فروخت کریں۔

PRESENTATION

1. DynaGab (Pregabalin) Capsules 50mg are available in blister pack of 14's.
2. DynaGab (Pregabalin) Capsules 75mg are available in blister pack of 14's.
3. DynaGab (Pregabalin) Capsules 100mg are available in blister pack of 14's.
4. DynaGab (Pregabalin) Capsules 150mg are available in blister pack of 14's.

Keep all medicines out of the reach of children.



Manufactured by :

Indus Pharma (Pvt.) Ltd.
65/27, Korangi Industrial Area,
Karachi-74900, Pakistan.