**BIOTECH GABAPENTIN 100; 300 & 400 capsules**
(43/2.5/0332; 43/2.5/0329; 43/2.5/0333)
Each capsule contains gabapentin 100 mg, 300 mg or 400 mg respectively

**SCHEDULING STATUS**

S3

## 1 NAME OF THE MEDICINE

BIOTECH GABAPENTIN 100 capsules

BIOTECH GABAPENTIN 300 capsules

BIOTECH GABAPENTIN 400 capsules

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

BIOTECH GABAPENTIN 100: Each capsule contains 100 mg gabapentin.

BIOTECH GABAPENTIN 300: Each capsule contains 300 mg gabapentin.

BIOTECH GABAPENTIN 400: Each capsule contains 400 mg gabapentin.

*Excipient with known effect*:

Contains sugar (lactose monohydrate): BIOTECH GABAPENTIN 100 contains 16,833 mg; BIOTECH GABAPENTIN 300 contains 50,50 mg and BIOTECH GABAPENTIN 400 contains 67,33 mg per each capsule.

For full list of excipients, see section 6.1

## 3 PHARMACEUTICAL FORM

Capsules

BIOTECH GABAPENTIN 100: Size 3 hard gelatine capsule with white body and white cap, containing white crystalline powder.

BIOTECH GABAPENTIN 300: Size 1 hard gelatine capsule with yellow body and yellow cap, containing white crystalline powder.

BIOTECH GABAPENTIN 400: Size 0 hard gelatine capsule with orange body and orange cap, containing white crystalline powder.

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic indications

BIOTECH GABAPENTIN is indicated as adjunctive therapy to other standard anticonvulsant medications in patients who have not achieved adequate seizure control with these medicines used alone or in combination.

BIOTECH GABAPENTIN is also used in controlling both simple and complex partial seizures with or without secondary generalised tonic clonic seizures.

### 4.2 Posology and method of administration

**Posology**

*Adults and children over 12 years:*

Initially 300 mg three times a day. The dosage may be gradually increased based on the clinical response. Usual effective dose: 900 – 1 800 mg/day in three divided doses with not more than 12 hours between doses.

Dosages of up to 3 600 mg/day in divided doses three times a day for short periods have been well tolerated.

Since titration to an effective dose can progress rapidly, this may be accomplished in as few as three days using one of the following approaches:

| | **Day 1** | **Day 2** | **Day 3** |
|---|---|---|---|
| 900 mg/day<br>or | 1 x 100 mg,<br>three times daily | 2 x 100 mg,<br>three times daily | 1 x 300 mg,<br>three times daily |
| | 1 x 300 mg,<br>once daily | 1 x 300 mg,<br>twice daily | 1 x 300 mg,<br>three times daily |
| 1 200 mg /day<br>or | 2 x 100 mg,<br>three times daily | 3 x 100 mg,<br>three times daily | 1 x 400 mg,<br>three times daily |
| | 1 x 400 mg,<br>once daily | 1 x 400 mg,<br>twice daily | 1 x 400 mg,<br>three times daily |

**Special populations**

*Elderly*:

Elderly patients should be carefully monitored for adverse events. Elderly patients may require dosage adjustment because of declining renal function with age (see creatinine clearance under Impaired renal function heading).

*Impaired renal function*:

The elimination of BIOTECH GABAPENTIN is decreased in patients with impaired renal function. For patients with impaired renal function or those undergoing haemodialysis the following maintenance dosage regimen are recommended.

| **Renal Function**<br><br>**Creatinine Clearance**<br><br>**(mL per minute)** | **Total daily Dose**<br><br>**(mg/day)** | **Dose regimen (mg)** |
|---|---|---|
| > 60 | 1200 | 400 three times a day |
| 30 - 60 | 600 | 300 two times a day |
| 15 - 30 | 300 | 300 once a day |
| < 15 | 150 | 300 once every other day |
| Haemodialysis [a] | - | 200 - 300 [b] |

[a] *Loading dose of 300 to 400 mg*

[b] *Maintenance dose of 200 to 300 mg gabapentin*

*Following each 4 hours of haemodialysis.*

Gabapentin plasma concentration need not be monitored to optimise BIOTECH GABAPENTIN therapy. BIOTECH GABAPENTIN may be used as adjunct with phenobarbital, phenytoin, valproic acid and carbamazepine without any alteration of the plasma concentrations or serum concentrations of gabapentin or the other antiepileptic medicines.

Withdrawal of BIOTECH GABAPENTIN therapy or the addition of another medication to the treatment should be done gradually over a minimum of one week.

**Paediatric population**

Safety and efficacy in children under 12 years of age has not been established (see section 4.3).

**Method of administration**

For oral administration.

### 4.3 Contraindications

- Hypersensitivity to gabapentin or to any of the excipients of BIOTECH GABAPENTIN listed in section 6.1.
- Children under the age of 12.
- Pregnancy and lactation (see section 4.6).
- Severe impaired renal function.

### 4.4 Special warnings and precautions for use

*Drug Rash with Eosinophilia and Systemic Symptoms (DRESS)*

Severe, life-threatening, systemic hypersensitivity reactions such as drug rash with eosinophilia and systemic symptoms (DRESS) have been reported in patients taking anti -epileptic medicines including BIOTECH GABAPENTIN.

It is important to note with DRESS, that early manifestations of hypersensitivity, such as fever or lymphadenopathy, may be present even though rash is not evident. If such signs or symptoms are present, the patient should be evaluated immediately. BIOTECH GABAPENTIN should be discontinued if an alternative aetiology for the signs or symptoms cannot be established.

*Severe cutaneous adverse reactions (SCARs)*

Severe cutaneous adverse reactions (SCARs) including Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN) and Drug rash with eosinophilia and systemic symptoms (DRESS), which can be life-

threatening or fatal, have been reported in association with BIOTECH GABAPENTIN treatment (see section 4.8).

At the time of prescription patients should be advised of the signs and symptoms and monitored closely for skin reactions.

If signs and symptoms suggestive of these reactions appear, BIOTECH GABAPENTIN should be withdrawn immediately, and an alternative treatment considered (as appropriate).

If the patient has developed a serious reaction such as SJS, TEN or DRESS with the use of BIOTECH GABAPENTIN, treatment with BIOTECH GABAPENTIN must not be restarted in this patient at any time.

*Anaphylaxis*

BIOTECH GABAPENTIN can cause anaphylaxis. Signs and symptoms in reported cases have included difficulty breathing, swelling of the lips, throat, and tongue, and hypotension requiring emergency treatment. Patients should be instructed to discontinue BIOTECH GABAPENTIN and seek immediate medical care should they experience signs or symptoms of anaphylaxis (see section 4.8).

*Suicidal ideation and behaviour*

BIOTECH GABAPENTIN should be used with caution in patients with a history of psychotic illness.

Suicidal ideation and behaviour have been reported in patients treated with anti-epileptic medicines in several indications. A meta-analysis of randomized placebo-controlled trials of anti-epileptic medicines has also shown a small increased risk of suicidal ideation and behaviour. The mechanism of this risk is not known, and the available data do not exclude the possibility of an increased risk for BIOTECH GABAPENTIN.

Therefore, patients should be monitored for signs of suicidal ideation and behaviour (the emergence or worsening of depression, or any unusual changes in mood or behaviour) and appropriate treatment should be considered. Patients and caregivers should be advised to seek medical advice should sign of suicidal ideation or behaviour emerge.

Discontinuation of BIOTECH GABAPENTIN treatment should be considered in case of suicidal ideation and behaviour.

Patients who require concomitant treatment with morphine may experience increases in BIOTECH GABAPENTIN concentrations (see section 4.5).

Patients should be carefully observed for signs of CNS depression, such as somnolence, and the dose of BIOTECH GABAPENTIN should be reduced appropriately (see section 4.5).

*Acute pancreatitis*

**If a patient develops acute pancreatitis under treatment with BIOTECH GABAPENTIN, discontinuation of BIOTECH GABAPENTIN should be considered (see section 4.8).**

*Porphyria:* Safety has not been established.

*Renal impairment:*

BIOTECH GABAPENTIN should also be used with caution in mild to moderate renal impairment. See table for dosage guidelines in renal impairment and haemodialysis (see section 4.2 and 4.3).

*Seizures*

Although there is no evidence of rebound seizures with BIOTECH GABAPENTIN, abrupt withdrawal of anticonvulsants in epileptic patients may precipitate status epilepticus. Should it be required to reduce the dosage, discontinue the treatment or substitute with another anticonvulsant medicine, it should be done gradually over a minimum of one week.

Some patients may experience an increase in seizure frequency or the onset of new types of seizures with BIOTECH GABAPENTIN.

Attempts to withdraw concomitant anti-epileptics in treatment refractive patients on more than one anti-epileptic, in order to reach BIOTECH GABAPENTIN monotherapy, have a low success rate.

BIOTECH GABAPENTIN is not considered effective against primary generalized seizures such as absences and may aggravate these seizures in some patients. Therefore, BIOTECH GABAPENTIN should be used with caution in patients with mixed seizures including absences.

Do not allow more than 12 hours between BIOTECH GABAPENTIN doses to prevent breakthrough convulsions.

*Dizziness, somnolence, loss of consciousness, confusion and mental impairment*

BIOTECH GABAPENTIN treatment has been associated with dizziness and somnolence, which could increase the occurrence of accidental injury (fall). There have also been post-marketing reports of confusion, loss of consciousness, and mental impairment. Therefore, patients should be advised to exercise caution until they are familiar with the potential effects of the medication.

*Concomitant use with opioids and other CNS depressants*

Patients who require concomitant treatment with central nervous system (CNS) depressants, including opioids should be carefully observed for signs of central nervous system (CNS) depression, such as somnolence, sedation and respiratory depression. Patients who use BIOTECH GABAPENTIN and morphine concomitantly may experience increases in BIOTECH GABAPENTIN concentrations. The dose of BIOTECH GABAPENTIN, or concomitant treatment with CNS depressants including opioids, should be reduced appropriately (see section 4.5).

*Respiratory depression*

BIOTECH GABAPENTIN has been associated with severe respiratory depression. Patients with risk factors such as, compromised respiratory function, respiratory conditions such as chronic obstructive pulmonary disease or neurological disease, renal impairment, concomitant use of central nervous system (CNS) depressants and the elderly (advanced age) might be at higher risk of experiencing this severe adverse reaction. Dose adjustments might be necessary in these patients.

*Elderly (over 65 years of age)*

No systematic studies in patients 65 years or older have been conducted with BIOTECH GABAPENTIN. In clinical investigations, in patients with neuropathic pain, somnolence, peripheral oedema and asthenia occurred in a somewhat higher percentage. Apart from these reported findings, clinical investigations in this age group do not indicate an adverse event profile different from that reported in younger patients.

*Misuse, abuse potential or dependence*

Gabapentin as contained in BIOTECH GABAPENTIN can cause medicine dependence, which may occur at therapeutic doses. Cases of misuse, abuse and dependence have been reported.

Patients with a history of substance abuse may be at higher risk for gabapentin misuse, abuse and dependence, and BIOTECH GABAPENTIN should be used with caution in such patients. Before prescribing BIOTECH GABAPENTIN, the patient's risk of misuse, abuse or dependence (development of tolerance, dose escalation, intentional overdose, drug-seeking behaviour have been reported) should be carefully evaluated.

*Withdrawal symptoms*

After discontinuation of short-term and long-term treatment with BIOTECH GABAPENTIN, withdrawal symptoms have been observed. Withdrawal symptoms may occur shortly after discontinuation, usually within 48 hours. Most frequently reported symptoms include anxiety, insomnia, nausea, pains, sweating, tremor, headache, depression, feeling abnormal, dizziness, and malaise. The occurrence of withdrawal symptoms following discontinuation of BIOTECH GABAPENTIN may indicate medicine dependence (see section 4.8). The patient should be informed about this at the start of the treatment. Should it be required to reduce the dosage, discontinue the treatment or substitute with another anticonvulsant medicine, it is recommended this should be done gradually over a minimum of one week independent of the indication (see section 4.2).

*Laboratory tests*

False positive readings may be obtained in the semi-quantitative determination of total urine protein by dipstick tests. It is therefore recommended to verify such a positive dipstick test result by methods based on a different analytical principle such as the Biuret method, turbidimetric or dye-binding methods, or to use these alternative methods from the beginning.

*Paediatric population*

The effects of long-term (greater than 36 weeks) BIOTECH GABAPENTIN therapy on learning, intelligence, and development in children and adolescents have not been adequately studied. The benefits of prolonged therapy must therefore be weighed against the potential risks of such therapy.

*Excipients*

*Lactose intolerance*

BIOTECH GABAPENTIN contains lactose. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take BIOTECH GABAPENTIN.

**4.5 Interaction with other medicines and other forms of interaction**

The absorption of BIOTECH GABAPENTIN from the gastrointestinal tract is reduced by antacids containing aluminium with magnesium. It is recommended that BIOTECH GABAPENTIN be taken at least two hours before or after the administration of an antacid.

Co-administration of BIOTECH GABAPENTIN with oral contraceptives, containing norethindrone and/or ethinyl estradiol, does not influence the steady-state plasma concentrations of either component.

Cases of respiratory depression, sedation and death associated with gabapentin, as contained in BIOTECH GABAPENTIN when co-administered with central nervous system depression-producing medication, including opioids or alcohol, have been reported. The combination of BIOTECH GABAPENTIN with opioids, are considered a particular concern in frail patients, in the elderly, in patients with serious underlying respiratory disease, with polypharmacy, and in those with substance abuse disorders.

There is no interaction between BIOTECH GABAPENTIN, phenobarbitone, phenytoin, valproic acid, carbamazepine, or carbamazepine 10,11-epoxide.

BIOTECH GABAPENTIN steady-state pharmacokinetics are similar for healthy subjects and patients with epilepsy receiving these anti-epileptic medicines.

Renal excretion of BIOTECH GABAPENTIN is unaltered by probenecid.

A slight decrease in renal excretion of BIOTECH GABAPENTIN that is observed when it is co-administered with cimetidine is not expected to be of clinical importance.

Morphine:

In a study involving healthy volunteers, when a 60 mg controlled-release morphine capsule was administered 2 hours prior to a 600 mg gabapentin capsule, as contained in BIOTECH GABAPENTIN, the mean gabapentin AUC increased by 44 % compared to gabapentin administered without morphine. The clinical significance of such changes has not been defined. Morphine pharmacokinetic parameter values were not affected by administration of gabapentin 2 hours after morphine. The observed opioid-mediated side effects associated with morphine plus gabapentin in the volunteers did not differ significantly from morphine plus placebo. The magnitude of interaction at other doses is not known (see section 4.4). Therefore, patients should be carefully observed for signs of CNS depression, such as somnolence, and the dose of BIOTECH GABAPENTIN or morphine should be reduced appropriately.

Laboratory tests:

False positive tests for proteinuria may occur with Ames Multistix-SG dipstick test when BIOTECH GABAPENTIN is added to other anticonvulsant medications. To determine urinary protein, the more specific sulfosalicylic acid precipitation procedure is recommended.

**4.6 Fertility, pregnancy and lactation**

**Pregnancy**

BIOTECH GABAPENTIN is contraindicated in pregnancy (see section 4.3).

BIOTECH GABAPENTIN should not be taken during pregnancy.

*Risk related to epilepsy and antiepileptic medicines in general*

The risk of birth defects is increased by a factor of 2 – 3 in the offspring of mothers treated with an antiepileptic medicine, as BIOTECH GABAPENTIN. Most frequently reported are cleft lip, cardiovascular malformations and neural tube defects. Multiple antiepileptic medicine therapy may be associated with a higher risk of congenital malformations than monotherapy, therefore it is important that monotherapy is practised whenever possible. Specialist advice should be given to women who are likely to become pregnant or who are of childbearing potential and the need for antiepileptic treatment should be reviewed when a woman is planning to become pregnant. No sudden discontinuation of antiepileptic therapy should be undertaken as this may lead to breakthrough seizures, which could have serious consequences for both mother and child. Developmental delay in children of mothers with epilepsy has been observed rarely. It is not possible to differentiate if the developmental delay is caused by genetic, social factors, maternal epilepsy or the antiepileptic therapy.

Neonatal withdrawal syndrome has been reported in newborns exposed *in utero* to gabapentin. Co-exposure to BIOTECH GABAPENTIN and opioids during pregnancy may increase the risk of neonatal withdrawal syndrome. Newborns should be monitored carefully.

*Risk related to gabapentin, contained in BIOTECH GABAPENTIN*

Gabapentin, contained in BIOTECH GABAPENTIN, crosses the human placenta.

There are no adequate data from the use of BIOTECH GABAPENTIN in pregnant women. Studies in animals have shown reproductive toxicity. The potential risk for humans is unknown. No definite conclusion can be made as to whether BIOTECH GABAPENTIN is causally associated with an increased risk of congenital malformations when taken during pregnancy, because of epilepsy itself and the presence of concomitant antiepileptic medicine during each reported pregnancy.

**Breastfeeding**

BIOTECH GABAPENTIN is contraindicated in lactation (see section 4.3). Gabapentin is excreted in human milk. Because the effect on the nursing infant is unknown, BIOTECH GABAPENTIN should not be used in breastfeeding mothers.

**Fertility**

No data on male and female fertility is available.

**4.7 Effects on ability to drive and use machines**

Special care should be taken by patients driving, operating machinery or performing any hazardous tasks. BIOTECH GABAPENTIN may have minor or moderate influence on the ability to drive and use machines. BIOTECH GABAPENTIN acts on the central nervous system and may cause drowsiness, dizziness or other related symptoms, like somnolence. Even, if they were only of mild or moderate degree, these undesirable effects could be potentially dangerous in patients driving or operating machinery.

This is especially true at the beginning of the treatment and after increase in dose.

Head and body injuries and road traffic incidents have also been reported with BIOTECH GABAPENTIN.

Therefore, patients are advised not to drive, operate complex machinery or engage in other potentially

hazardous activities until it is known whether this medication affects their ability to perform these activities.

The concomitant use of alcohol will intensify these effects.

**4.8 Undesirable effects**

*Summary of the safety profile*

The most frequent clinical adverse events: Somnolence, dizziness, ataxia, headache, nystagmus, tremor, fatigue, diplopia, nausea and/or vomiting and rhinitis.

*Tabulated summary of adverse reactions*

| | |
|---|---|
| **Infections and infestations** | |
| *Frequent:* | Viral infection; pneumonia; respiratory tract infection; urinary tract infection; infection; otitis media. |
| **Blood and lymphatic system disorders** | |
| *Frequent:* | Leukopenia, purpura, white blood cells decreased. |
| **Immune system disorders** | |
| *Less frequent:* | Allergic reactions (e.g. urticaria). |
| **Metabolism and nutrition disorders** | |
| *Frequent:* | Increased appetite, anorexia. |
| *Less frequent:* | Hyperglycaemia (most often observed in patients with diabetes), hypoglycaemia (most often observed in patients with diabetes), hyponatraemia. |
| **Psychiatric disorders** | |

| | |
|---|---|
| *Frequent:* | Confusion, depression, emotional lability (mood or mental changes); nervousness; thinking abnormal anxiety; hostility. |
| *Less frequent:* | Suicidal ideation and behaviour, agitation, medicine dependence. |
| **Nervous system disorders** | |
| *Frequent:* | Ataxia; dizziness; somnolence (drowsiness); amnesia; coordination abnormal; dysarthria; insomnia; headache; nystagmus; tremor; convulsions; hyperkinesias; sensations such as paresthesia; hypaesthesia; increased, decreased, or absent reflexes. |
| *Less frequent:* | Hypokinesia, mental impairment; loss of consciousness, other movement disorders (e.g. choreoathetosis, dyskinesia, dystonia). |
| **Eye disorders** | |
| *Frequent:* | Visual disturbances such as amblyopia (blurred vision) and diplopia. |
| *Frequency unknown:* | Conjunctivitis. |
| **Ear and labyrinth disorders** | |
| *Frequent:* | Vertigo. |
| **Cardiac disorders** | |
| *Less frequent:* | Palpitations. |
| **Vascular disorder** | |
| *Frequent:* | Hypotension; hypertension; vasodilatation. |
| **Respiratory, thoracic and mediastinal disorders** | |
| *Frequent:* | Coughing; pharyngitis; rhinitis; dyspnoea; bronchitis. |
| *Less frequent:* | Respiratory depression. |
| **Gastrointestinal disorders** | |

| | |
|---|---|
| *Frequent:* | Abdominal pain; constipation; dental abnormalities; diarrhoea; dyspepsia; dry mouth or throat; nausea and/or vomiting; gingivitis; flatulence. |
| *Less frequent:* | Dysphagia. |
| **Skin and subcutaneous tissue disorder** | |
| *Frequent:* | Acne; pruritus; rash; maculopapular rash, facial oedema; purpura most often described as bruises resulting from physical trauma. |
| **Musculoskeletal and connective tissue disorders** | |
| *Frequent:* | Back pain; myalgia; twitching; arthralgia. |
| **Renal and urinary disorders** | |
| *Less frequent:* | Frequent urination. |
| **Reproductive system and breast disorders** | |
| *Frequent:* | Impotence. |
| **General disorders and administration site conditions** | |
| *Frequent:* | Fatigue; fever; peripheral oedema; abnormal gait; asthenia; pain; malaise; flu syndrome. |
| *Less frequent:* | Generalized oedema; irritability. |
| **Investigations** | |
| *Frequent:* | WBC (white blood cell count) decreased; weight gain. |
| *Less frequent:* | Elevated liver function tests SGOT (AST), SGPT (ALT) and bilirubin. |
| **Injury, poisoning and procedural complications** | |
| *Frequent:* | Accidental injury; fractures; abrasion. |
| *Less frequent:* | Fall. |

*Post-marketing experience:*

| | |
|---|---|
| **Blood and lymphatic system disorders:** | *Frequency unknown*<br>Thrombocytopenia. |
| **Immune system disorders:** | *Frequency unknown*<br>Hypersensitivity syndrome, allergic reaction including urticaria, anaphylactic, anaphylactoid reaction and hypersensitivity including systemic reactions with eosinophilia, fever, rash, hepatitis, lymphadenopathy, and systemic DRESS symptoms (see section 4.4). |
| **Cardiac disorders:** | *Frequency unknown*<br>Chest pain. |
| **Ear and labyrinth disorders:** | *Frequency unknown*<br>Tinnitus. |
| **Gastrointestinal disorders:** | *Frequency unknown*<br>Pancreatitis. |
| **Hepato-biliary disorders:** | *Frequency unknown*<br>Hepatitis, jaundice. |
| **General disorders and administration site conditions:** | *Frequency unknown*<br>Adverse events following the abrupt discontinuation of BIOTECH GABAPENTIN have also been reported. Withdrawal symptoms (see section 4.4). The occurrence of withdrawal symptoms following discontinuation of BIOTECH GABAPENTIN may indicate medicine dependence. The patient should be informed about this at the |

| | |
|---|---|
| | start of the treatment. If BIOTECH GABAPENTIN should be discontinued, it is recommended this should be done gradually over a minimum of 1 week independent of the indication (see section 4.2). |
| **Investigations:** | *Frequency unknown*<br>Blood glucose fluctuations in patients with diabetes**,** elevated liver function tests (LFTs), increased blood creatine phosphokinase. |
| **Musculoskeletal and connective tissue disorders:** | *Frequency unknown*<br>Rhabdomyolysis, myoclonus. |
| **Nervous system disorders:** | *Frequency unknown*<br>Spastic torticollis. |
| **Psychiatric disorders:** | *Frequency unknown*<br>Hallucinations. |
| **Skin and subcutaneous tissue disorders:** | *Frequency unknown*<br>Alopecia, angioedema, erythema multiforme, Stevens-Johnson syndrome, drug rash with eosinophilia and systemic symptoms (DRESS) (see section 4.4). |
| | *Less frequent*<br>Toxic epidermal necrolysis (see section 4.4). |
| **Renal and urinary disorders:** | *Frequency unknown*<br>Acute kidney failure, urinary incontinence. |
| **Reproductive system and breast disorders:** | *Frequency unknown*<br>Breast hypertrophy, gynaecomastia, sexual dysfunction (including changes in libido, ejaculation disorders and anorgasmia). |

| |
|---|
| Under treatment with gabapentin, contained in BIOTECH GABAPENTIN, cases of acute pancreatitis were reported. Causality with BIOTECH GABAPENTIN is unclear (see section 4.4). In patients on haemodialysis due to end-stage renal failure, myopathy with elevated creatine kinase levels has been reported. |
| Withdrawal symptoms may occur shortly after discontinuation, usually within 48 hours. The most frequently reported symptoms include anxiety, insomnia, nausea, pains, sweating, sudden unexplained deaths, tremor, agitation, panic attacks, diarrhoea, headache, depression, feeling abnormal, dizziness, malaise tachycardia, confusion and generalized oedema and chest pain. |

**Paediatric population**

Respiratory tract infections, otitis media, convulsions and bronchitis were reported only in clinical studies in children. Additionally, in clinical studies in children, aggressive behaviour and hyperkinesias were reported frequently.

*Reporting of suspected adverse reactions*

Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Health care providers are asked to report any suspected adverse drug reactions to SAHPRA via the Med Safety APP (Medsafety X SAHPRA) and eReporting platform (who-umc.org) found on SAHPRA website.

**4.9 Overdose**

Acute, life-threatening toxicity has not been observed with BIOTECH GABAPENTIN overdoses of up to 49 g.

Symptoms of overdose include dizziness, double vision, slurred speech, drowsiness, lethargy and mild diarrhoea (See section 4.8). Treatment is symptomatic and supportive.

Reduced absorption of BIOTECH GABAPENTIN at higher doses may limit medicine absorption and hence minimize toxicity at the time of overdosing.

Overdoses of BIOTECH GABAPENTIN, particularly in combination with other CNS depressant medications, may result in coma.

Haemodialysis has been shown to be effective in eliminating gabapentin and may be indicated in patients with renal impairment.

## 5 PHARMACOLOGICAL PROPERTIES

### 5.1 Pharmacodynamic properties

**Category and class**: A 2.5 Anticonvulsants, including anti-epileptics.

Pharmacotherapeutic group: Other Antiepileptics.

ATC code: N03AX12.

Gabapentin is an analogue of the neurotransmitter GABA (gamma-aminobutyric acid) and is neither a GABA agonist nor antagonist. The precise mechanism of action is unknown.

### 5.2 Pharmacokinetic properties

**Absorption:**

Gabapentin is absorbed from the gastrointestinal tract by means of a saturable mechanism. Bioavailability decreases as the dose increase.

**Distribution:**

Peak plasma concentrations are achieved within 2 to 3 hours, after administration. The steady state is achieved within 1 to 2 days. Absolute bioavailability of 300 mg and 400 mg gabapentin capsules is approximately 55 %.

Gabapentin has an apparent volume of distribution of approximately 50 to 60 L. Gabapentin penetrates the blood-brain barrier, yielding cerebrospinal fluid (CSF) concentrations in the range of 7 to 35 % of corresponding steady-state plasma trough concentrations in patients with epilepsy.

**Biotransformation:**

Gabapentin is not metabolised and most of a dose is excreted unchanged in the urine with the remainder appearing in the faeces. Gabapentin does not induce hepatic mixed-function oxidase enzymes responsible for metabolism. Gabapentin elimination parameters are independent of dose.

**Elimination:**

In elderly patients with a decrease in renal function, the plasma clearance is decreased, and elimination half-life is increased. Gabapentin elimination-rate constant, plasma clearance, and renal clearance are directly proportional to creatinine clearance.

Gabapentin is removed from plasma by haemodialysis.

## 6 PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

*Capsule content:*

Lactose monohydrate

Maize starch

Purified talc

*Hard capsule shell (cap and body):*

BIOTECH GABAPENTIN 100:

Titanium dioxide

Gelatine

BIOTECH GABAPENTIN 300:

Titanium dioxide

Yellow iron oxide

Gelatine

BIOTECH GABAPENTIN 400:

Titanium dioxide

Yellow iron oxide

Red iron oxide

Gelatine

**6.2 Incompatibilities**

Not applicable.

**6.3 Shelf life**

36 months.

**6.4 Special precautions for storage**

Store at or below 25 ºC in a dry place.

**6.5 Nature and contents of container**

BIOTECH GABAPENTIN 100: Transparent PVC and printed aluminium foil blister strips containing 10 capsules packed in an outer carton containing 100 capsules.

BIOTECH GABAPENTIN 300: Transparent PVC and printed aluminium foil blister strips containing 10 capsules packed in an outer carton containing 100 capsules.

BIOTECH GABAPENTIN 400: Transparent PVC and printed aluminium foil blister strips containing 10 capsules packed in an outer carton containing 100 capsules.

**6.6 Special precautions for disposal and other handling**

No special requirements.

**7 HOLDER OF CERTIFICATE OF REGISTRATION**

Biotech Laboratories (Pty) Ltd

400 16th Road

Ground Floor, Block K West, Central Park

Randjespark

Midrand

Gauteng, 1685

Tel: +27 (0)11 848 3050

**8 REGISTRATION NUMBER(S)**

BIOTECH GABAPENTIN 100: 43/2.5/0332

BIOTECH GABAPENTIN 300: 43/2.5/0329

BIOTECH GABAPENTIN 400: 43/2.5/0333

## 9 DATE OF FIRST AUTHORISATION/ RENEWAL OF THE AUTHORISATION

Date of registration: 27 November 2014

| **NAMIBIA:** | |
|---|---|
| Biotech Gabapentin 100<br><br>Reg No. 16/2.5/0187 | <br><br>NS2 |
| Biotech Gabapentin 300<br><br>Reg No. 16/2.5/0188 | <br><br>NS2 |
| Biotech Gabapentin 400<br><br>Reg No. 16/2.5/0189 | <br><br>NS2 |

## 10 DATE OF REVISION OF THE TEXT

22 September 2026