The clinical significance of this finding is unknown. Clinical experience is recommended, as follows (see dosing recommendations above for effective doses in each indication):

Gabapentin is indicated for:

• Warnings and Precautions: Anaphylaxis and Angioedema: discontinue gabapentin and evaluate patient immediately. Gabapentin can cause anaphylaxis and angioedema after the first dose or at any time during treatment. Signs and symptoms in reported cases have included difficulty breathing, swelling of the lips, throat, and tongue, and urticaria. Symptoms may occur within minutes or up to several hours after a dose is administered. Gabapentin should be discontinued if an alternative etiology for the signs or symptoms cannot be excluded. The types and frequency of adverse reactions were similar across age groups except for peripheral edema and ataxia, which tended to increase in incidence with age.

Among the 2,074 patients >12 years of age treated with gabapentin across all epilepsy studies (controlled and uncontrolled), 31 (1.5%) had status epilepticus. Of these, 14 patients had no prior history of status epilepticus. Among the 454 patients >12 years of age treated with gabapentin across all indications, 52 (11%) had an overall decrease in seizure frequency.

Somnolence, ataxia, and fatigue were common adverse reactions leading to discontinuation of gabapentin in patients older than 60 years. These adverse reactions were likely the result of gabapentin’s effects on the somatosensory system in the elderly population. Gabapentin caused somnolence and dizziness. Moreover, because gabapentin causes somnolence and dizziness, caution should be exercised when driving or operating hazardous machinery. People of all ages should be advised not to operate complex machinery until they have gained sufficient experience on gabapentin.

Gabapentin is known to increase the steady-state plasma concentrations of carbamazepine, cimetidine, citalopram, ethinyl estradiol, fluoxetine, fluvoxamine, lamotrigine, midazolam, nitrazepam, warfarin, and zolpidem. In addition, gabapentin increases in gabapentin concentrations and may require dose adjustment to other drugs that are substrates for the cytochrome P450 isoenzyme 3A.

5 WARNINGS AND PRECAUTIONS

5.1 General Information

Adverse reactions were: emotional lability 6% (gabapentin-treated patients) vs. 1.3% (placebo-treated patients); hallucinations 3% vs. 0.6%; suicidal thoughts or behavior 2% vs. 0.7%; depression 1.9% vs. 0.8%; anxiety 1.9% vs. 0.6%; somnolence 1.2% vs. 0.6%; ataxia 0.8% vs. 0.6%; fatigue 0.6% vs. 0.6%; nausea and/or vomiting 0.6% vs. 0.6%; and dizziness 0.6% vs. 0.6%. The incidences of these reactions were generally consistent across age groups except for somnolence, sedation, and dizziness, which tended to increase in incidence with age.

Tricyclic antidepressants may increase the effects of gabapentin. In a published study, gabapentin (400 mg/kg/day) was administered by intraperitoneal injection to neonatal Sprague-Dawley rats from day 2 to day 7. One (0.1%) of 720 rats died during the study, and no macroscopic abnormalities were observed in the treated rats at necropsy. Although the toxicologic significance of this finding is unknown, it is consistent with the known embryotoxic effects of gabapentin.

8.4 Pediatric Use

To provide information regarding the effects of gabapentin on the maturation of the nervous system in animals, the effects of gabapentin on the development of the CNS were studied. In a study using the developing monkey, a monkey model of the human CNS, during pregnancy, treatment-related effects on somatosensory development were observed in late gestation and early postnatal development. In an in vitro study of fetal human brain development, gabapentin increased the frequency of neurite outgrowth in a dose-dependent manner. These findings are consistent with the known effects of gabapentin on the somatosensory system in the elderly population. Gabapentin is known to increase the steady-state plasma concentrations of carbamazepine, cimetidine, citalopram, ethinyl estradiol, fluoxetine, fluvoxamine, lamotrigine, midazolam, nitrazepam, warfarin, and zolpidem. In addition, gabapentin increases in gabapentin concentrations and may require dose adjustment to other drugs that are substrates for the cytochrome P450 isoenzyme 3A.

5.2 Administration Information

Adjust the dosage to achieve a steady-state value of gabapentin of 10 to 20 mcg/mL in patients with normal renal function. The steady-state value of gabapentin may be reached within 3 days of increasing the dosage to the recommended maintenance dose. The recommended maintenance dose is 3600 mg/day in adults or 20 mg/kg/day in children. Patients with renal impairment (CrCl <30 mL/min) may require further dose adjustment. The recommended dosage is 600 mg three times a day.

GABAergic neurons are thought to be involved in the control of interictal activity in epilepsy. The clinical significance of these findings is unknown. The use of gabapentin in patients less than 12 years of age with compromised renal function has not been studied.

Tidal volumes may be increased for patients with status epilepticus. The use of gabapentin in patients less than 12 years of age with compromised renal function has not been studied.

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GABAergic neurons are thought to be involved in the control of interictal activity in epilepsy. The clinical significance of these findings is unknown. The use of gabapentin in patients less than 12 years of age with compromised renal function has not been studied.
Gabapentin is a medication used to treat three types of seizures: partial seizures, absence seizures, and tonic-clonic seizures. It may also be used to treat pain from shingles or postherpetic neuralgia. Gabapentin is commonly prescribed as an add-on medication along with other antiseizure drugs. It is available in tablet form, as well as capsules.

**Gabapentin Capsules, USP**

- Each capsule contains:
  - 100 mg, 300 mg, or 400 mg of gabapentin, USP
  - The following inactive ingredients: dibasic calcium phosphate dihydrate, cellulose, cornstarch, gelatin, lactose monohydrate, magnesium stearate, microcrystalline cellulose, polyethylene glycol, polysorbate 80, propylene glycol, FD&C Blue No. 2, FD&C Yellow No. 10, FD&C Red No. 40, D&C Red No. 28, D&C Yellow No. 11, and titanium dioxide.

**Clinical Trials**

In controlled clinical studies in patients with partial seizures, absence seizures, and tonic-clonic seizures, gabapentin capsules were generally well tolerated. The most frequently reported adverse events (occurring in 3% or more patients and at an incidence twice that of placebo) were somnolence, ataxia, dizziness, and nystagmus. These adverse events were generally mild to moderate in intensity and transient in nature. Gabapentin capsules were given as single doses ranging from 300 mg to 2,400 mg, with doses generally increasing by 300 mg per week. Gabapentin capsules were administered with or without food and without regard to the timing of the doses relative to meals.

**Dosage and Administration**

**Adults and Children 12 Years of Age or Older**

- **Partial Seizures:** Initial dose of 1,200 mg/day (300 mg tid) is recommended. If desired clinical response is not achieved, increments of 1,200 mg/day may be administered at 2-week intervals up to a maximum daily dose of 4,800 mg/day.
- **Absence Seizures:** The recommended starting dose is 900 mg/day (300 mg tid).
- **Tonic-Clonic Seizures:** The recommended starting dose is 900 mg/day (300 mg tid).

**Children 9 to 12 Years of Age**

The recommended starting dose is 15 mg/kg/day (300 mg tid), with increments of 15 mg/kg/day every 2 weeks up to a maximum daily dose of 4,800 mg/day.

**Pediatric Patients Under 9 Years of Age**

The recommended starting dose is 15 mg/kg/day (300 mg tid), with increments of 15 mg/kg/day every 2 weeks up to a maximum daily dose of 4,800 mg/day.

**Precautions**

- **Overdose:** Overdose with gabapentin was not identified in animals or in humans. In humans, no specific treatment is known for overdose. In humans, no specific treatment is known for overdose. In general, supportive medical treatment is indicated in the management of gabapentin overdose.

**Adverse Reactions**

Gabapentin capsules are generally well tolerated. In controlled clinical studies in patients with partial seizures, absence seizures, and tonic-clonic seizures, the most frequently reported adverse events (occurring in 3% or more patients and at an incidence twice that of placebo) were somnolence (14%), ataxia (6%), dizziness (5%), and nystagmus (5%). These adverse events were generally mild to moderate in intensity and transient in nature. Gabapentin capsules were given as single doses ranging from 300 mg to 2,400 mg, with doses generally increasing by 300 mg per week. Gabapentin capsules were administered with or without food and without regard to the timing of the doses relative to meals.

**Pharmacokinetics**

Gabapentin is rapidly absorbed after oral administration and is extensively metabolized in the liver. Approximately 99% of a dose is accounted for in the plasma. The maximum plasma concentration is achieved within 2 to 4 hours after oral administration of gabapentin. The absolute bioavailability of gabapentin is approximately 100% after oral administration. Gabapentin is not bound to plasma proteins. The mean steady-state volume of distribution of gabapentin is approximately 1.5 to 2.5 L/kg. Gabapentin is primarily eliminated as the intact drug in urine (57% of the dose) and feces (20% of the dose). Gabapentin dose is directly proportional to the square root of body weight.

**Pharmacodynamics**

Gabapentin has been shown to be effective in the treatment of partial seizures, absence seizures, and tonic-clonic seizures. Gabapentin has also been shown to be effective in the treatment of postherpetic neuralgia.

**Contraindications**

Gabapentin is contraindicated in patients with a known hypersensitivity reactions to gabapentin or any of its components.

**Warnings and Precautions**

- **Hypersensitivity Reactions:** Gabapentin capsules are contraindicated in patients with a known hypersensitivity reactions to gabapentin or any of its components.

**Interactions**

Gabapentin is not known to affect the metabolism of other drugs that are metabolized by the liver. Therefore, concomitant administration of gabapentin with other drugs that are metabolized by the liver is not expected to significantly affect the plasma concentrations of other drugs.

**Supplied Forms**

Gabapentin capsules, USP are supplied as follows:

- Bottles of 100: NDC 58657-622-01

Each bottle contains:

- 100 capsules

Each capsule contains:

- 100 mg, 300 mg, or 400 mg of gabapentin, USP and the following inactive ingredients: dibasic calcium phosphate dihydrate, cellulose, cornstarch, gelatin, lactose monohydrate, magnesium stearate, microcrystalline cellulose, polyethylene glycol, polysorbate 80, propylene glycol, FD&C Blue No. 2, FD&C Yellow No. 10, FD&C Red No. 40, D&C Red No. 28, D&C Yellow No. 11, and titanium dioxide.

**Storage and Handling**

Store at controlled room temperature 20° to 25°C (68° to 77°F). Excursions are permitted if the product is protected from extremes of heat and cold. Keep the bottle tightly closed and out of the reach of children.