**baclofen** (bak-loe-fen)

**Gablofen, Lioresal**

**Classification**

Therapeutic: antispasticity agents, skeletal muscle relaxants (centrally acting)

**Pregnancy Category C**

**Indications**

**PO:** Treatment of reversible spasticity due to multiple sclerosis or spinal cord lesions. **IT:** Treatment of severe spasticity of cerebral or spinal origin (should be reserved for patients who do not respond or are intolerant to oral baclofen) (should wait at least one year in patients with traumatic brain injury before considering therapy).

**Unlabeled Use:** Management of pain in trigeminal neuralgia.

**Action**

Inhibits reflexes at the spinal level.

**Therapeutic Effects:** Decreased muscle spasticity; bowel and bladder function may also be improved.

**Pharmacokinetics**

**Absorption:** Well absorbed after oral administration.

**Distribution:** Widely distributed; crosses the placenta.

**Protein Binding:** 30%.

**Metabolism and Excretion:** 70–80% eliminated unchanged by the kidneys.

**Half-life:** 2.5–4 hr.

**TIME/ACTION PROFILE (effects on spasticity)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>0.5–1 hr</td>
<td>4 hr</td>
<td>4–8 hr</td>
</tr>
</tbody>
</table>

**Contraindications/Precautions**

**Contraindicated in:** Hypersensitivity.

**Use Cautiously in:** Patients in whom spasticity maintains posture and balance; Patients with epilepsy (may lower seizure threshold); Renal impairment (dose may be reduced); OB, Lactation: Safety not established; Pedi: Children ≤4 yr (intrathecal) (safety not established); Geriatric patients are at risk of CNS side effects.

- **CNS:** Seizures (IT), dizziness, drowsiness, fatigue, weakness, confusion, depression, hallucinations, insomnia.
- **EENT:** Nasal congestion, tinnitus.
- **CV:** Edema, hypotension.
- **GI:** Nausea, constipation.
- **GU:** Frequency.
- **Derm:** Pruritus, rash.
- **Metab:** Hyperglycemia, weight gain.
- **Neuro:** Ataxia.

**Interactions**

**Drug-Drug:** CNS depression with other CNS depressants including alcohol, antihistamines, opioid analgesics, and sedative/hypnotics. Use with MAO inhibitors may lead to CNS depression or hypotension.

**Drug-Natural Products:** Concomitant use of kava-kava, valerian, or chamomile can cause CNS depression.

**Route/Dosage**

**PO (Adults):** 5 mg 3 times daily. May increase q 1 days by 5 mg/dose up to 80 mg/day (some patients may have a better response to 4 divided doses).

**PO (Children ≥8 yr):** 30–40 mg daily divided q 8 hr; titrate to a maximum of 120 mg/day.

**PO (Children 2–7 yr):** 20–30 mg daily divided q 8 hr; titrate to a maximum of 60 mg/day.

**PO (Children 2–7 yr):** 10–20 mg daily divided q 8 hr; titrate to a maximum of 40 mg/day.

**IT (Adults):** 100–800 mcg/day infusion; dose is determined by response during screening phase.

**IT (Children ≥4 yr):** 25–1200 mcg/day infusion (average 275 mcg/day); dose is determined by response during screening phase.

**NURSING IMPLICATIONS**

**Assessment**

- Assess muscle spasticity before and periodically after dosing.
- Observe patient for drowsiness, dizziness, or ataxia. May be alleviated by a change in dose.
- IT: Monitor patient closely during test dose and titration. Resuscitative equipment should be immediately available for life-threatening or intolerable side effects.
- Lab Test Considerations: May cause ↑ in serum glucose, alkaline phosphatase, AST, and ALT levels.

**Potential Nursing Diagnoses**

- Impaired physical mobility (Indications)
- Risk for injury (Adverse Reactions)

**Implementation**

- **CNS:** Seizures (IT), dizziness, drowsiness, fatigue, weakness, confusion, depression, hallucinations, insomnia. **GI:** Nausea, constipation. **GU:** Frequency. **Derm:** Pruritus, rash. **Metab:** Hyperglycemia. **Neuro:** Ataxia. **Misc:** Hypersensitivity reactions, sweating.

**Adverse Reactions/Side Effects**

**CNS:** Sedation, dizziness, drowsiness, ataxia, confusion, depression, hallucinations, insomnia. **GI:** Nausea, constipation. **GU:** Frequency. **Derm:** Pruritus, rash. **Metab:** Hyperglycemia. **Neuro:** Ataxia. **Misc:** Hypersensitivity reactions, sweating.

**Interactions**

**Drug-Drug:** CNS depression with other CNS depressants including alcohol, antihistamines, opioid analgesics, and sedative/hypnotics. Use with MAO inhibitors may lead to CNS depression or hypotension.

**Drug-Natural Products:** Concomitant use of kava-kava, valerian, or chamomile can cause CNS depression.
Implementation
● PO: Administer with milk or food to minimize gastric irritation.
● IV: For screening phase, dilute for a concentration of 50 mcg/mL with sterile preservative-free NaCl for injection. Test dose should be administered over at least 1 min. Observe patient for a significant decrease in muscle tone or frequency or severity of spasm. If no response is inadequate, 2 additional tests, each 24 hr apart, 75 mcg/1.5 mL and 100 mcg/2 mL respectively, may be administered. Patients with an inadequate response should not proceed to chronic IT therapy.
● Dose titration for implantable IT pumps is based on patient response. If no substantive response after dose increase, check pump function and catheter patency.

Patient/Family Teaching
● Instruct patient to take baclofen as directed. Take a missed dose within 1 hr; do not double doses. Caution patient to avoid abrupt withdrawal of this medication because it may precipitate an acute withdrawal reaction (hallucinations, increased spasticity, seizures, mental changes, restlessness). Discontinue baclofen gradually over 2 wks or more.
● May cause dizziness and drowsiness. Advise patient to avoid driving or other activities requiring alertness until response to drug is known.
● Instruct patient to change positions slowly to minimize orthostatic hypotension.
● Advise patient to avoid concurrent use of alcohol or other CNS depressants while taking this medication.
● Advise patient to report signs and symptoms of hypersensitivity (rash, itching) promptly.

Evaluation/Desired Outcomes
● Decrease in muscle spasticity and associated musculoskeletal pain with an increased ability to perform activities of daily living.
● Decreased pain in patients with trigeminal neuralgia. May take weeks to obtain optimal effect.

Why was this drug prescribed for your patient