**Lanreotide** (lan-re-o-tide)

**Somatuline Depot**

**Classification**
Therapeutic: hormones
Pharmacologic: somatostatin analogues

**Pregnancy Category C**

**Indications**
Long-term management of acromegaly which cannot be treated by or has not responded to surgery and/or radiation therapy.

**Action**
Acts as an analog of somatostatin, inhibiting growth hormone (GH) and insulin-like growth factor-1 (IGF-1) in patients with acromegaly. Therapeutic Effects: Decreased levels of growth hormone (GH) and insulin-like growth factor-1 (IGF-1) in acromegalic patients resulting in decreased manifestations of acromegaly.

**Pharmacokinetics**
Absorption: Following subcut administration, lanreotide precipitates in body tissues acting as a depot formulation from which drug is slowly released (75% bioavailability).
Distribution: Unknown.
Metabolism and Excretion: Minimal renal/fecal excretion, some biliary excretion.
Half-life: 23–30 days.

**TIME/ACTION PROFILE**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subcut</td>
<td>unknown</td>
<td>first 24 hr</td>
<td>1 mo</td>
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**Contraindications/Precautions**
- Use Cautiously in: Diabetic patients; Underlying heart disease, especially bradycardia; OB: Use only if maternal benefit outweighs risk to fetus; Pedi: Safety not established.

**Adverse Reactions/Side Effects**

CV: Bradycardia, hypertension. GI: Pancreatitis, abdominal pain, diarrhea, gallstones.
Endo: Hyperglycemia, hypoglycemia.

**Interactions**

Drug-Dye: Risk of bradycardia with other drugs that may cause a heart rate including beta-blockers. Minimize other drugs that may cause a heart rate if concurrent administration is necessary. May alter the effects of antidiabetic agents (monitor blood sugar).
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**Route/Dosage**

**Subcut (Adults):**
- 90 mg every 4 weeks for 3 mo, further adjustments are made on the basis of GH and IGF1 levels as follows: GH to 2.5 ng/mL, IGF-1 normalized with good symptom control— maintain dose at 90 mg every 4 wk; GH > 2.5 ng/mL, IGF-1 elevated and/or uncontrolled symptoms— dose is doubled to 120 mg every 4 wk; GH > 4 mg/mL, IGF-1 symptoms currently controlled — dose is doubled to 120 mg every 4 wk.

**Hepatic/Renal Impairment**

**Subcut (Adults):**
- 60 mg every 4 wk; further adjustments are made on the basis of GH and IGF1 levels.

**NURSING IMPLICATIONS**

**Assessment**
- Assess for GI side effects (diarrhea, abdominal pain, nausea, gas, constipation); usually decrease with continued treatment.
- **Lab Test Considerations:** Monitor serum growth hormone (GH) and insulin-like growth factor-1 (IGF-1) levels every 3 mo.
- May cause hyperglycemia or hypoglycemia. Monitor blood glucose when therapy is initiated and when dose is altered and after antidiabetic treatment accordingly.
- May cause slight decreases in thyroid function; monitor as clinically indicated.
- May cause anemia.

**Potential Nursing Diagnoses**
- Risk for disproportionate growth (Indications)
- Deficient knowledge, related to medication regimen (Patient/Family Teaching)

**Implementation**
- **Subcut:** Store in refrigerator and protect from light. Remove sealed pouch from refrigerator 30 min prior to injection; allow to reach room temperature. Keep refrigerated.
Administer deep into subcutaneous tissue of superior external buttock. Do not fold skin; insert needle perpendicular to skin, rapidly to full length. Alternate injection between right and left side. May cause injection site reactions (pain, injection site mass); decrease with continued therapy. Syringe is for single use; do not use after expiration date.

**Patient/Family Teaching**

- Explain purpose of lanreotide to patient. Advise patient to read Patient Information before receiving first injection and before each monthly injection in case of new information. If an injection is missed, consult health care professional.
- Instruct patient to notify health care professional if unusual symptoms develop or known symptoms persist or worsen.
- Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to consult health care professional before taking other Rx, OTC, or herbal products.
- Advise patient to notify health care professional if pregnancy is planned or suspected or if breast feeding.

**Evaluation/Desired Outcomes**

- Decreased levels of growth hormone (GH) and insulin-like growth factor-1 (IGF-1).

*Why was this drug prescribed for your patient?*