solifenacin (so-ly-fen-a-sin)

**Classification**
Urinary tract antispasmodics
Anticholinergic

**Pregnancy Category C**

**Indications**
Overactive bladder with symptoms (urgency, incontinence, frequency).

**Action**
Acts as a muscarinic (cholinergic) receptor antagonist; antagonizes bladder smooth muscle contraction.

**Therapeutic Effects:**
Decreased symptoms of overactive bladder.

**Pharmacokinetics**

- **Absorption:** Well absorbed (90%).
- **Distribution:** Unknown.
- **Protein Binding:** 98%.
- **Metabolism and Excretion:** Extensively metabolized by the CYP3A4 enzyme system. 69% excreted in urine as metabolites, 22% in feces.
- **Half-life:** 45–68 hr.

**TIME/ACTION PROFILE**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>unknown</td>
<td>3–8 hr</td>
<td>24 hr</td>
</tr>
</tbody>
</table>

**Contraindications/Precautions**

- Hypersensitivity; Urinary retention; Gastric retention; Uncontrolled angle-closure glaucoma; Severe hepatic impairment; Lactation: Lactation.
- Use cautiously in: Concurrent use of CYP3A4 inhibitors (use lower dose and monitor); Moderate hepatic impairment (dose should not exceed 5 mg/day).

**Adverse Reactions/Side Effects**

- **CNS:** Confusion, drowsiness, hallucinations, headache.
- **CV:** Palpitations, tachycardia.
- **EENT:** Blurred vision.
- **GI:** Constipation, dry mouth, dyspepsia.
- **MS:** Muscle weakness.
- **Misc:** Angioedema.

**Interactions**

- **Drug-Drug:** Use with caution with drugs that induce or inhibit the CYP3A4 enzyme system.
- **Drug-Lab Test:** Use with caution with lab tests for liver function.

**Route/Dosage**

- **PO (Adults):**
  - 5 mg once daily, may be qd to 10 mg once daily;
  - Concurrent use of ketoconazole or other potent CYP3A4 inhibitors—Dose should not exceed 5 mg/day.

**Renal Impairment**

- **CCr <30 mL/min—**Dose should not exceed 5 mg/day.

**Hepatic Impairment**

- **Moderate hepatic impairment—**Dose should not exceed 5 mg/day.

**NURSING IMPLICATIONS**

- **Assessment:**
  - Monitor voiding pattern and assess symptoms of overactive bladder (urgency, incontinence, frequency).
- **Implementation:**
  - Do not confuse Vesicare (solifenacin) with Vesanoid (oral tretinoin).
  - PO: Administer once daily without regard to food. Tablets must be swallowed whole; do not break, crush, or chew.

**Potential Nursing Diagnoses**

- Impaired urinary elimination (indications)

**Client Education:**

- Notify health care professional immediately if symptoms of overactive bladder worsen.

**Patient Consultation:**

- Explain purpose of drug and importance of completing therapy. Inform patient that the objective of therapy is to improve urinary symptoms.

- Advise patient to report any changes in vision or difficulty emptying bladder.

- Instruct patient to avoid driving and other activities requiring alertness until response to drug is known.

- Advise patient to avoid alcohol and other CNS depressants.

- Encourage patient to drink at least 8 glasses of fluid per day to promote adequate urine volume.
Patient/Family Teaching

- Instruct patient to take solifenacin as directed. Advise patient to read the Patient Information before starting therapy and with each prescription refill. If a dose is missed, skip dose and take next day; do not take 2 doses in same day.
- Do not share solifenacin with others; may be dangerous.
- May cause dizziness and blurred vision. Caution patient to avoid driving and other activities that require alertness until response to medication is known.
- Advise patient to notify health care professional immediately if hives, rash, swelling of lips, face, tongue, or throat; trouble breathing occurs.
- Inform patient of potential anticholinergic side effects (constipation, urinary retention, blurred vision, heat prostration in a hot environment).
- Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and consult health care professional before taking any new medications.

Evaluation/Desired Outcomes

- Decrease in symptoms of overactive bladder (urge urinary incontinence, urgency, frequency).

Why was this drug prescribed for your patient?