Tolterodine (tol-ter-oh-deen)
Detrol, Detrol LA

**Classification**
Therapeutic: urinary tract antispasmodics
Pharmacologic: anticholinergics

**Pregnancy Category C**

**Indications**
Treatment of overactive bladder function that results in urinary frequency, urgency, or urge incontinence.

**Action**
Acts as a competitive muscarinic receptor antagonist resulting in inhibition of cholinergically mediated bladder contraction.

**Therapeutic Effects:**
Decreased urinary frequency, urgency, and urge incontinence.

**Pharmacokinetics**

**Absorption:** Well absorbed (77%) following oral administration.

**Distribution:** Unknown.

**Protein Binding:** 96.3%.

**Metabolism and Excretion:** Extensively metabolized by the liver (primarily by CYP2D6 isoenzyme; the CYP2D6 enzyme system exhibits genetic polymorphism; 7% of population may be poor metabolizers and may have significantly lower tolterodine concentrations and an increased risk of adverse effects); one metabolite (5-hydroxymethyltolterodine) is active; other metabolites are excreted in urine.

**Half-life:** Tolterodine—1.9–3.7 hr; 5-hydroxymethyltolterodine—2.9–3.1 hr.

**TIME/ACTION PROFILE (effects on bladder function)**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
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<tbody>
<tr>
<td>PO</td>
<td>unknown</td>
<td>unknown</td>
<td>12 hr</td>
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**Contraindications/Precautions**

**Contraindicated in:** Hypersensitivity to tolterodine or fesoterodine; Urinary retention; Gastric retention; Uncontrolled angle-closure glaucoma;

**Use Cautiously in:** GI obstructive disorders, including pyloric stenosis (risk of gastric retention); Significant bladder outflow obstruction (risk of urinary retention); Significant angle-closure glaucoma. May worsen glaucoma. Significant hepatic impairment: lower doses recommended. Impaired renal function. OB: Safety not established; use only if potential maternal benefit justifies potential risk to fetus. Pedi: Safety not established.

**Adverse Reactions/Side Effects**

**CNS:** Headache, dizziness, sedation.

**EENT:** Blurred vision, dry eyes.

**GI:** Constipation, dyspepsia.

**Derm:** STEVENS-JOHNSON SYNDROME.

**Misc:** ANAPHYLAXIS, ANGIOEDEMA.

**Interactions**

**Drug-Drug:** Erythromycin, clarithromycin, ketoconazole, itraconazole, and miconazole may inhibit metabolism and effects.

**Route/Dosage**

**PO (Adults):** 2 mg twice daily as tablets; may be lowered depending on response or 2–4 mg once daily as extended-release capsules.

**PO (Adults with impaired hepatic function or concurrent enzyme inhibitors):** 1 mg twice daily.

**NURSING IMPLICATIONS**

**Assessment**

- Assess patient for urinary urgency, frequency, and urge incontinence periodically during therapy.
- Monitor for signs and symptoms of anaphylaxis and angioedema (difficulty breathing, upper airway obstruction, fall in BP, rash, swelling of face or neck). Have emergency equipment readily available.
- Assess for rash periodically during therapy. May cause Stevens-Johnson syndrome or toxic epidermal necrolysis. Discontinue therapy if severe or if accompanied with fever, general malaise, fatigue, muscle or joint aches, blisters, oral lesions, conjunctivitis, hepatitis and/or eosinophilia.

**Potential Nursing Diagnoses**

- Impaired urinary elimination (Indications)
- Urinary retention (Indications)

**Patient/Family Teaching**


**Pharmacologic Class:** Urinary tract antispasmodics, anticholinergics
Implementation
- PO: Administer without regard to food.
- Extended-release capsules should be swallowed whole; do not open, crush, dissolve, or chew.

Patient/Family Teaching
- Instruct patient to take tolterodine as directed.
- May cause dizziness and blurred vision. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
- Instruct patient to notify health care professional immediately if rash or signs and symptoms of anaphylaxis or angioedema occur.

Evaluation/Desired Outcomes
- Decreased urinary frequency, urgency, and urge incontinence.

Why was this drug prescribed for your patient?