trihexyphenidyl (trye-hex-ee-fen-i-dill)

**Indications**

Adjunct in the management of parkinsonian syndrome of many causes, including drug-induced parkinsonism.

**Action**

Inhibits the action of acetylcholine, resulting in: Decreased sweating and salivation, Mydriasis (pupillary dilation), Increased heart rate. Also has spasmolytic action on smooth muscle. Inhibits cerebral motor centers and blocks efferent impulses. Therapeutic Effects: Diminished signs and symptoms of parkinsonian syndrome (tremors, rigidity).

**Pharmacokinetics**

Absorption: Well absorbed following oral administration.

Distribution: Unknown.

Metabolism and Excretion: Excreted mostly in urine.

Half-life: 3.7 hr.

**TIME/ACTION PROFILE (antiparkinson effects)**

- **ROUTE**
- **ONSET**
- **PEAK**
- **DURATION**
- PO 1 hr 2–3 hr 6–12 hr

**Contraindications/Precautions**

Contraindicated in: Hypersensitivity; Angle-closure glaucoma; Acute hemorrhage; Tachycardia secondary to cardiac insufficiency. Thyrotoxicosis, Known alcohol intolerance (elixir only).

Use cautiously in: Geri, Pedi: q risk of adverse reactions; Intestinal obstruction or infection; Prostatic hyperplasia; Chronic renal, hepatic, pulmonary, or cardiac disease; OB, Lactation, Pedi: Safety not established.

**Adverse Reactions/Side Effects**

CNS: dizziness, nervousness, confusion, drowsiness, headache, presyncope, weakness, vertigo, tachycardia, palpitations, increased heart rate. CV: tachycardia, extrasystoles, sinus tachycardia, atrial fibrillation. GI: dry mouth, nausea, vomiting, constipation, abdominal cramping, diarrhea. GU: urinary hesitancy, urinary incontinence. Other: dry mouth, xerostomia, interepithelial edema, conjunctivitis, oral mucosal erythema, fever.

**Interactions**

Drug-Drug: Additive anticholinergic effects with other drugs having anticholinergic properties, including phenothiazines, tricyclic antidepressants, quinidine, and disopyramide. May increase the efficacy of levodopa but may ↑ the risk of psychosis. Additive CNS depression with other CNS depressants, including alcohol, antihistamines, opioids, and sedative/hypnotics. Anticholinergics may alter the absorption of oral orally administered drugs by slowing motility of the GI tract.

Drug-Natural Products: ↑ anticholinergic effects with angel’s trumpet and jimson weed and scopolia.

**Route/Dosage**

- **PO (Adults):** 1–2 mg/day initially; q by 2 mg q 3–5 days. Usual maintenance dose is 6–10 mg/day in 3 divided doses (up to 15 mg/day).

**NURSING IMPLICATIONS**

- **Assessment**
  - Assess parkinsonian and extrapyramidal symptoms (restlessness or desire to keep moving, rigidity, tremors, pill rolling, mask-like face, shuffling gait, muscle spasms, twisting motions, difficulty speaking or swallowing, loss of balance control) prior to and throughout therapy.
  - Monitor intake and output ratios and assess patient for urinary retention (dysuria, distended abdomen, infrequent voiding of small amounts, overflow incontinence).
  - Assess for signs of confusion or depression during early therapy with this medication. Withhold drug and report significant behavioral changes.

- **Potential Nursing Diagnoses**
  - Impaired physical mobility (Indications)
  - Risk for injury (Indications)
  - Deficient knowledge, related to medication regimen (Patient/Family Teaching)

**Client Education**

- Inform patient that drug may cause worsening of dementia and renal toxicity. Temporarily discontinue drug if these are noted. If no improvement occurs, discontinue drug.
Implementation

- PO: Usually administered after meals. May be administered before meals if patient suffers from dry mouth or with meals if gastric distress is a problem. Use calibrated measuring device to ensure accurate dose of elixir.

Patient/Family Teaching

- Instruct patient to take this drug exactly as directed. If a dose is missed, take as soon as remembered, unless next scheduled dose is within 2 hr; do not double doses.
- Medications should be tapered gradually when discontinuing as rebound reaction may occur (tachycardia, insomnia, return of parkinsonian or extrapyramidal symptoms).
- May cause drowsiness or dizziness. Advise patient to avoid driving or other activities that require alertness until response to medication is known.
- Caution patient to change positions slowly to minimize orthostatic hypotension.
- Instruct patient that frequent rinsing of mouth, good oral hygiene, and sugarless gum or candy may decrease dry mouth. Patient should notify health care professional if dryness persists (saliva substitutes may be used). Also, notify the dentist if dryness interferes with use of dentures.
- Medication should be tapered gradually when discontinuing or a withdrawal reaction may occur (anxiety, tachycardia, insomnia, return of parkinsonian or extrapyramidal symptoms).
- May cause drowsiness or dizziness. Advise patient to avoid driving or other activities that require alertness until response to medication is known.
- Caution patient to change positions slowly to minimize orthostatic hypotension.
- Instruct patient that frequent rinsing of mouth, good oral hygiene, and sugarless gum or candy may decrease dry mouth. Patient should notify health care professional if dryness persists (saliva substitutes may be used). Also, notify the dentist if dryness interferes with use of dentures.
- 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, especially cold remedies, or drinking alcoholic beverages.
- Caution patient that this medication decreases perspiration. Overheating may occur during hot weather. Patient should remain indoors, in an air-conditioned environment, during hot weather.
- Advise patient to increase activity and bulk and fluid in diet to minimize constipating effects of medication.
- Advise patient to avoid taking antacids or antidiarrheals within 1–2 hr of this medication.
- Advise patient to notify health care professional if confusion, rash, urinary retention, or visual changes occur.
- Emphasize the importance of routine follow-up exams.

Evaluation/Desired Outcomes

- Decrease in tremors and rigidity and an improvement in gait and balance. Therapeutic effects are usually seen 2–3 days after the initiation of dosage.
- Resolution of drug-induced extrapyramidal symptoms.

Why was this drug prescribed for your patient?