benztropine (benz-trap-ee-nin)

Cogniz

Classification
Therapeutic: antiparkinson agents
Pharmacologic: anticholinergics

Pregnancy Category C

Indications
Adjunctive treatment of all forms of Parkinson's disease, including drug-induced extra-pyramidal effects and acute dystonic reactions.

Action
Blocks cholinergic activity in the CNS, which is partially responsible for the symptoms of Parkinson's disease. Restores the natural balance of neurotransmitters in the CNS.

Therapeutic Effects:
Reduction of rigidity and tremors.

Pharmacokinetics
Absorption: Well absorbed following PO and IM administration.
Distribution: Unknown.
Metabolism and Excretion: Unknown.
Half-life: Unknown.

TIME/ACTION PROFILE (antidyskinetic activity)

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>1–2 hr</td>
<td>several days</td>
<td>24 hr</td>
</tr>
<tr>
<td>IM, IV</td>
<td>within min</td>
<td>unknown</td>
<td>24 hr</td>
</tr>
</tbody>
</table>

Contraindications/Precautions
Contraindicated in: Hypersensitivity; Children <3 yr; Angle-closure glaucoma; Tardive dyskinesia.

Use Cautiously in: Prostatic hyperplasia; Seizure disorders; Cardiac arrhythmias; OB, Lactation: Safety not established; Geri: q risk of adverse reactions.

Adverse Reactions/Side Effects
CNS: confusion, depression, dizziness, hallucinations, headache, sedation, weakness, EENT: blurred vision, dry eyes, mydriasis, CV: arrhythmias, hypertension, palpitations, tachycardia. GU: constipation, dysuria, hematuria, nausea. GI: constipation, dry mouth, flatulence.Resp: nasal stuffiness, nasal dryness.

NURSING IMPLICATIONS
Assessment
● Assess parkinsonian and extrapyramidal symptoms (restlessness or desire to keep moving, rigidity, tremors, pill rolling, masklike face, shuffling gait, muscle spasms, twisting motions, difficulty speaking or swallowing, loss of balance control) before and throughout therapy.
● Assess bowel function daily. Monitor for constipation, abdominal pain, distention, or absence of bowel sounds.
● Monitor intake and output ratios and assess patient for urinary retention (dysuria, diminished stool, incontinence). Instruct patient to avoid large amounts of fluids or overactive antacids.

Nursing Considerations
● Patients with mental illness are at risk of developing exaggerated symptoms of their disorder during early therapy with benztropine. Withhold drug and notify physician or other health care professional if significant behavioral changes occur.

Interactions
Drug-Drug: Additive anticholinergic effects with drugs sharing anticholinergic properties, such as antihistamines, phenothiazines, quinidine, disopyramide, and tricyclic antidepressants. Counteracts the cholinergic effects of Bethanechol, Antacids and antidiarrheals may decrease absorption.

Drug-Natural Products: Y2 anticholinergic effect with angel's trumpet, jimson weed, and scopolia.

Route/Dosage
Parkinsonism
PO (Adults): 1–2 mg/day in 1–2 divided doses (range 0.5–6 mg/day).

Acute Dystonic Reactions
IM, IV (Adults): 1–2 mg, then 1–2 mg PO twice daily.

Drug-Induced Extrapyramidal Reactions
PO, IM, IV (Adults): 1–4 mg given once or twice daily (1–2 mg 2–3 times daily may also be used PO).

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Nursing Considerations
● Patients with mental illness are at risk of developing exaggerated symptoms of their disorder during early therapy with benztropine. Withhold drug and notify physician or other health care professional if significant behavioral changes occur.
IM/IV:
Monitor pulse and BP closely and maintain bedrest for 1 hr after administration. Advise patients to change positions slowly to minimize orthostatic hypotension.

Potential Nursing Diagnoses
Impaired physical mobility (Indications)
Risk for injury (Indications)

Implementation

PO:
Administer with food or immediately after meals to minimize gastric irritation. May be crushed and administered with food if patient has difficulty swallowing.

IM:
Parenteral route is used only for dystonic reactions.

IV Administration

Direct IV:
IV route is rarely used because onset is same as with IM route. Note: Administer at a rate of 1 mg over 1 min.

Y-Site Compatibility:
alfentanil, amikacin, amphotericin B, ascorbic acid, atropine, atracurium, azathioprine, aztreonam, buprenorphine, bumetanide, butorphanol, calcium chloride, calcium gluconate, cefazolin, cefotaxime, ceftriaxone, ceftazidime, ciprofloxacin, cyclosporine, dexamethasone, diazepam, diltiazem, dobutamine, dopamine, droperidol, digoxin, diphenhydramine, dopamine, enalaprilat, epinephrine, erythromycin, esmolol, famotidine, fentanyl, fluconazole, folic acid, gentamicin, glycopyrrolate, heparin, hydrocortisone, imipenem/cilastatin, insulin, isoproterenol, ketorolac, labetalol, lidocaine, magnesium sulfate, mannitol, meperidine, metaraminol, methyldopate, methylprednisolone, metoclopramide, metoprolol, midazolam, morphine, meprobamate, mexitilene, nalbuphine, naloxone, nitroglycerin, nitroprusside, norepinephrine, ondansetron, oxacillin, oxytocin, papaverine, penicillin G, pentazocine, phenobarbital, phenolphthalein, phenol, phenytoin, sulfamethoxazole/trimethoprim.

Y-Site Incompatibility:
amphotericin B colloidal, cefoperazone, chloramphenicol, dantrolene, diazepam, diazoxide, furosemide, ganciclovir, indomethacin, penicillin G, pentamidine, pentazocine, phenobarbital, phenol, phenolphthalein, phenol, phenytoin, sulfamethoxazole/trimethoprim.

Patient/Family Teaching

Encourage patient to take benztropine as directed. Take missed doses as soon as possible, up to 2 hr before the next dose. Taper 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 the drug is known.

Instruct patient to frequently rinse mouth, good oral hygiene, and gargle to prevent dysphonia. Patients should notify health care professional if dysphonia persists (false voice may be heard). Also, notify the dentist if dysphonia interferes with use of dentures.

Caution patients to change positions slowly to minimize orthostatic hypotension.

Instruct patients to notify health care professional if difficulty with urination, constipation, abdominal discomfort, rapid or pounding heartbeat, confusion, eye pain, or rash occurs.

Advise patient to confer with health care professional before taking OTC medications, especially cold remedies, or drinking alcoholic beverages.

Advise patient to avoid taking antacids or antidiarrheals within 1–2 hr of this medication.

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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 therapy.

Why was this drug prescribed for your patient?