amantadine (a-man-ta-deen)

Classification
Therapeutic: antivirals, antiparkinson agents
Pregnancy Category C

Indications

Action
Potentiates the action of dopamine in the CNS. Prevents penetration of influenza A virus into host cell. Therapeutic Effects: Relief of Parkinson’s symptoms. Prevention and decreased symptoms of influenza viral infections.

Pharmacokinetics
Absorption: Well absorbed from the GI tract.
Distribution: Distributed to various body tissues and fluids. Crosses blood-brain barrier and enters breast milk.
Metabolism and Excretion: Excreted unchanged in the urine.
Half-life: 10–28 hr.

TIME/ACTION PROFILE (antiparkinson effect)

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
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</thead>
<tbody>
<tr>
<td>PO</td>
<td>within 48 hr</td>
<td>up to 2 wk</td>
<td>unknown</td>
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Contraindications/Precautions
Contraindicated in: Hypersensitivity.
Use Cautiously in: Seizure disorders; Liver disease; Psychiatric problems; HF; Renal impairment (dose reduction required if CCr < 50 mL/min); May cause susceptibility to rubella infections; OB, Lactation: Safety not established; Geri: Sensitivity to adverse effects.

Adverse Reactions/Side Effects
CNS: ataxia, dizziness, insomnia, anxiety, confusion, depression, drowsiness, psychosis, seizures, agitation, hallucinations.
CV: hypotension, HF, edema.
EENT: blurred vision, dry mouth. Resp: dyspnea.
GI: nausea, vomiting, anorexia, constipation.
GU: urinary retention.
Derm: mottling, livedo reticularis, rashes.
Hemat: leukopenia, neutropenia.

Drug Interactions
Concurrent use of antihistamines, phenothiazines, quinidine, disopyramide, and tricyclic antidepressants may anticholinergic effects (dry mouth, blurred vision, constipation). Risk of adverse CNS reactions with alcohol.

Renal Impairment
PO (Adults): CCr 30–50 mL/min—200 mg on the first day, then 100 mg once daily in geriatric patients; CCr 15–29 mL/min—200 mg on the first day, then 100 mg every other day; CCr < 15 mL/min or hemodialysis patients—200 mg once every 7 days.

NURSING IMPLICATIONS
Assessment
Monitor BP periodically. Assess for drug-induced orthostatic hypotension.
Monitor mental status and renal function periodically; patients receiving >100 mg daily are more likely to develop adverse effects. Assess for HF (peripheral edema, weight gain, dyspnea, Cushingoid appearance, irregular respiration), especially in patients on chronic therapy or with a history of HF. Monitor patient at the appearance of a diffuse red mottling of the skin (livedo reticularis), especially in the lower extremities or on exposure to cold. Discontinue with signs of anaphylaxis.
continued therapy but may not completely resolve until 2–12 wk after therapy has been discontinued.

- Geri: Monitor intake and output closely in geriatric patients. May cause urinary retention. Report significant discrepancy or bladder discomfort before and throughout therapy.
- Parkinson’s Disease: assess akinesia, rigidity, tremors, and gait disturbances before and throughout therapy.
- Influenza Prophylaxis or Treatment: Monitor respiratory status (rate, breath sounds, sputum) and temperature periodically. Supportive treatment is indicated if symptoms occur.

- Toxicity and Overdose: Symptoms of toxicity include CNS stimulation (confusion, mood changes, tremors, seizures, arrhythmias, and hypotension). There is no specific antidote, although physostigmine has been used to reverse CNS effects.

Potential Nursing Diagnoses
- Impaired physical mobility
- Risk for infection (Indications)

Implementation
- Do not confuse amantadine with amiodarone.
- PO: Do not administer last dose of medication near bedtime; may produce insomnia in some patients.
- Administering amantadine in divided doses may decrease CNS side effects.
- The contents of capsules may be mixed with food or fluids if the patient has difficulty swallowing.

Antiviral Prophylaxis: Treatment should be started in anticipation of contact or as soon as possible after exposure and continue for at least 10 days following exposure. Infection period is just before onset of symptoms in up to 1 wk after if vaccine is unsuccessful or contraindicated, may be administered up to 90 days to protect from repeated exposures.
- May be used with inactivated influenza A virus vaccine until protective antibody response develops. Administration for 2–3 wk after vaccine has been given.
- Antiviral Treatment: Administer as soon as possible after onset of symptoms and continue for 24–48 hr after symptoms disappear.

Patient/Family Teaching
- Advise patient to take medication around the clock as directed and not to skip doses or double up on missed doses. If a dose is missed, do not take within 4 hr of the next dose.
- May cause dizziness or blurred vision. Advise patients to avoid driving or other activities that require alertness until response to the drug is known.
- Advise patient to make position changes slowly to minimize orthostatic hypotension.
- Inform patient that frequent mouth rinses, good oral hygiene, and sugarless gum or candy may decrease dry mouth. Consult health care professional if dry mouth persists.
- Advise patient to confer with health care professional before taking OTC medications, especially cold remedies, or drinking alcoholic beverages.
- Instruct patient to notify health care professional if confusion, blurred vision, difficulty with urination, colitis and shortness of breath, new or increased gambling, sexual, or other intense urges, or worsening of Parkinson’s disease symptoms occur.
- Instruct patient and family to notify health care professional if influenza symptoms occur when amantadine is used as prophylaxis or if symptoms do not improve as expected when used for treatment.
- Parkinson’s Disease: Advise patient that up to 2 wk of therapy may be needed for full benefit of medication. Notify health care professional if medication gradually loses its effectiveness. Amantadine should be tapered gradually, abrupt withdrawal may precipitate a parkinsonian crisis.

Evaluation/Desired Outcomes
- Decrease in akinesia and rigidity. Full therapeutic effects may require 2 wk of therapy.

Why was this drug prescribed for your patient?