dronabinol (droe-nab-i-nol)
delta-9-tetrahydrocannabinol, THC, Mariju
Classification
Therapeutic: antiemetics
Pharmacologic: cannabinoids
Schedule III
Pregnancy Category C

Indications
Prevention of nausea and vomiting from cancer chemotherapy when other more conventional agents have failed. Management of anorexia associated with weight loss in patients with AIDS.

Action
Active ingredient in marijuana. Has a wide variety of CNS effects, including inhibition of the vomiting control mechanism in the medulla oblongata. 

Therapeutic Effects:
Suppression of nausea and vomiting. Increased appetite in patients with AIDS.

Pharmacokinetics
Absorption: Extensively metabolized following absorption, resulting in poor bioavailability (10–20%).
Protein Binding: 97%.
Metabolism and Excretion: Extensively metabolized; 50% excreted via biliary elimination. At least one metabolite is psychoactive.
Half-life: 25–36 hr.

TIME/ACTION PROFILE (antiemetic 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>unknown</td>
<td>2–4 hr</td>
<td>4–6 hr†</td>
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†Appetite stimulation lasts 24 hr or longer

Contraindications/Precautions
Contraindicated in: Hypersensitivity to dronabinol, marijuana, or sesame oil; Nausea and vomiting due to any other causes; Lactation.

Use Cautiously in: Patients with history of substance abuse; Cardiovascular disease (due to potential adverse effects); Mania, depression, or schizophrenia (use may worsen these conditions); Patients taking sedatives, hypnotics, or other psychotropic drugs (increased risk of adverse effects); OB, Pedi: Safety and efficacy not established.

Adverse Reactions/Side Effects

Interactions
Drug-Drug: Additive CNS depression with alcohol, antihistamines, barbiturates, benzodiazepines, stimulants, tricyclic antidepressants, and sedative/hypnotics. Increased risk of anticholinergic side effects with amphetamines, antihistamines, scopolamine, tyramine, sympathomimetics, lithium, anticonvulsants, and tricyclic antidepressants. May increase blood levels of theophylline.

Drug-Natural Products: Increased risk of hypertension with kava, valerian, skullcap, chamomile, hops, or other herbs that contain caffeine.

Route/Dosage
PO (Adults): Antiemetic—5 mg/m2 1–3 hr prior to chemotherapy; may repeat every 2–4 hr after chemotherapy to a total of 4–6 doses/day. If 5 mg/m2 dose is ineffective and no significant adverse reactions have occurred, dosage may be increased by 2.5 mg/m2 to a maximum of 15 mg/m2/dose.

Drug Interactions/dosage Regimen

NURSING IMPLICATIONS
Assessment
● monitor nausea, vomiting, appetite, bowel sounds, and abdominal pain prior to and following the administration of this drug.

Nursing Considerations
● Use caution in patients with a history of substance abuse, cardiovascular disease, mania, depression, or schizophrenia.

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[Note: This information is a summary of the drug's actions and usage. For complete details, refer to the original sources or professional guidelines.]
Monitor hydration, nutritional status, and intake and output. Patients with severe nausea and vomiting may require IV fluids in addition to antiemetics.

Monitor BP and heart rate periodically throughout therapy.

Patients on dronabinol therapy should be monitored closely for side effects because the effects of dronabinol vary with each patient.

Potential Nursing Diagnoses

- Risk for deficient fluid volume (Indications)
- Imbalanced nutrition: less than body requirements (Indications)
- Risk for injury (Side Effects)

Implementation

- Dronabinol capsules should be refrigerated (not frozen).
- Physical or psychological dependence may occur with high doses or prolonged therapy, causing a withdrawal syndrome (irritability, restlessness, insomnia, hot flashes, sweating, dizziness, loose stools, hiccups, anorexia) when discontinued. This is unlikely to occur with therapeutic doses and short-term use of dronabinol.
- Antiemetic: This drug may be administered prophylactically 1–3 hr prior to chemotherapy and repeated every 3–4 hr after chemotherapy up to 4–6 doses daily. Most patients respond to 5 mg three or four times daily.
- Appetite Stimulant: Give 2.5 mg twice daily before lunch and supper initially. Reduce dose to 2.5 mg orally in the evening or at bedtime for patients unable to tolerate daily 5 mg dose. Maximum dose is 2.5 mg orally each 9 hr. Some patients may require a weekly taper of 1 mg for 4 weeks. If further therapeutic effects in desired and adverse effects are minimal, most patients respond to 2.5 mg twice daily, but up to 10 mg bid have been tolerated in about 50% of patients. Adverse effects are dose-related.

Patient/Family Teaching

- Instruct patient to take dronabinol exactly as directed. Take missed doses as soon as possible but not if almost time for next dose; do not double doses. Signs of overdose (mood changes, confusion, hallucinations, depression, nervousness, fast or pounding heartbeat) may occur with increased doses.
- Advise patient to call for assistance when ambulating, because this drug may cause dizziness, drowsiness, and impaired judgment and coordination. Avoid driving or other activities requiring alertness until response to the drug is known.
- Instruct patient to change positions slowly to minimize orthostatic hypotension.
- Caution patient to avoid taking alcohol or other CNS depressants during dronabinol therapy.
- Advise patient and family to use general measures to decrease nausea (begin with sips of liquids and small, nonspicy meals; provide oral hygiene, remove noxious stimuli from environment).

Evaluation/Desired Outcomes

- Prevention of and decrease in nausea and vomiting associated with chemotherapy.
- Increased or maintained weight in patients with AIDS.

Why was this drug prescribed for your patient?