tamoxifen (ta-mox-i-fen)

Classifications
Therapeutic: antineoplastics
Pharmacologic: antiestrogens

Pregnancy Category D

Indications

Action
Competes with estrogen for binding sites in breast and other tissues. Reduces DNA synthesis and estrogen response.

Therapeutic Effects:
Suppression of tumor growth. Reduced incidence of breast cancer in high-risk patients.

Pharmacokinetics
Absorption: Absorbed after oral administration.
Distribution: Widely distributed.
Metabolism and Excretion: Mostlly metabolized by the liver. Slowly eliminated in the feces. Minimal amounts excreted in the urine.

Half-life: 7 days.

TIME/ACTION PROFILE (tumor response)

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
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<tbody>
<tr>
<td>PO</td>
<td>4–10 wk</td>
<td>several mo</td>
<td>several wk</td>
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Contraindications/Precautions
Contraindicated in: Hypersensitivity; Concurrent warfarin therapy with history of deep vein thrombosis (patients at high risk for breast cancer only); OB, Lactation: Pregnancy or lactation.

Use Cautiously in: Bone marrow reserve; Women with childbearing potential.

Adverse Reactions/Side Effects


Interactions
Drug-Drug: Estrogens may affect effectiveness of concurrently administered tamoxifen. Blood levels are increased by bromocriptine. May increase the anticoagulant effect of warfarin. Risk of thromboembolic events is increased by concurrent use of other antineoplastics.

Route/Dosage

Treatment of Breast Cancer

PO (Adults): 10–20 mg twice daily; doses of 20 mg/day may be taken as a single dose.

Prevention of Breast Cancer/Ductal Carcinoma In Situ

PO (Adults): 20 mg once daily for 5 yr.

NURSING IMPLICATIONS

Assessment

● Assess for an increase in bone or tumor pain. Confer with health care professional regarding analgesics. This transient pain usually resolves despite continued therapy.

● Lab Test Considerations: Monitor CBC, platelets, and calcium levels before and during therapy. May cause transient hypercalcemia in patients with metastases to the bone. An estrogen receptor assay should be assessed before initiation of therapy.

● Monitor serum cholesterol and triglyceride concentrations in patients with pre-existing hyperlipidemia. May cause concentrations.

● Monitor hepatic function tests and thyroxine (T4) periodically during therapy. May cause serum hepatic enzyme and thyroxine concentrations.

● Gynecologic examinations should be performed regularly; may cause variations in Papanicolaou and vaginal smears.

Potential Nursing Diagnoses

Deficient knowledge, related to medication regimen (Patient/Family Teaching)

1. Cardinal Drug Name
2. Genetic Implication
3. Laboratory Value
4.Edrophonium indicate most frequent
5. Discontinued
Implementation

- PO: Administer with food or liquids if GI irritation becomes a problem. Consult health care professional if nausea occurs shortly after administration of medication to determine need for repeat dose.
- Do not crush, break, chew, or administer an amiodarone within 1–2 hr of enterico-coated tablet.

Patient/Family Teaching

- Instruct patient to take medication as directed. If a dose is missed, it should be omitted.
- If skin lesions are present, inform patient that lesions may temporarily increase in size and may have increased erythema.
- Advise patient to report bone pain to health care professional promptly. This pain may be severe. Notify health care professional if patient vomits shortly after administration of medication to determine need for repeat dose.
- Instruct patient to monitor weight weekly. Weight gain or peripheral edema should be reported to health care professional.
- Advise patient that medication may cause hot flashes. Notify health care professional promptly if these become bothersome.
- Instruct patient to notify health care professional promptly if pain or swelling of legs, shortness of breath, weakness, dizziness, confusion, nausea, vomiting, weight gain, diziness, headache, loss of appetite, or blurred vision occurs. Patient should also report menstrual irregularities, vaginal bleeding, active pain or pressure.
- Advise patient that medication may induce ovulation and may have teratogenic properties. Advise patient to use a nonhormonal method of contraception during and for 1 mo after therapy.

Evaluation/Desired Outcomes

- Decrease in the size or spread of breast cancer. Observable effects of therapy may not be seen for 4–10 wk after initiation.

Why was this drug prescribed for your patient?