**tranylcypromine** (tran-ill-siproe-meen)

**Parnate**

**Classification**

**Therapeutic:** antidepressants

**Pharmacologic:** monoamine oxidase (MAO) inhibitors

**Pregnancy Category:** C

**Indications**

Treatment of major depressive episode without melancholia (usually reserved for patients who do not tolerate or respond to other modes of therapy [e.g., tricyclic antidepressants, SSRIs, SNRIs or electroconvulsive therapy]).

**Action**

Inhibits the enzyme monoamine oxidase, resulting in an accumulation of various neurotransmitters (dopamine, epinephrine, norepinephrine, and serotonin) in the body. Therapeutic Effects: improved mood in depressed patients.

**Pharmacokinetics**

**Absorption:** Unknown.

**Distribution:** Crosses the placenta and enters breast milk.

**Metabolism and Excretion:** Unknown.

**Half-life:** 90 – 190 min.

**TIME/ACTION PROFILE (antidepressant effect)**

<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>2 days–3 wk</td>
<td>2–3 wk</td>
<td>3–5 days</td>
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**Contraindications/Precautions**

**Contraindicated in:** Hypersensitivity; Liver disease; Cerebrovascular disease; Cardiovascular disease; Hypertension; Pheochromocytoma; Patients undergoing elective surgery requiring general anesthesia (should be discontinued at least 10 days before surgery); History of headaches; Excessive consumption of caffeine; Contraindications of monoamine oxidase inhibitors; Fluoxetine; SNRIs antidepressants; tricyclic antidepressants; lithium; anticonvulsants; tricyclic antidepressants; serotonin syndrome; anorexia; malnutrition; alcohol; antipsychotics; amphetamine; methyldopa; levodopa; dopamine; noradrenaline; antihypertensives; antihistamines; sympathetic agents; opiate receptors; methadone; meperidine; bupropion; buspirone; sympathomimetics; tryptophan; illicit drugs; St. John’s wort.

**Use Cautiously in:** Patients who may be suicidal or have a history of drug dependency; Pedi: may require a higher therapeutic range, concomitant use with other antidepressants, serotonin syndrome; Geri: greater sensitivity to adverse reactions; children: safety and effectiveness not established.

**Adverse Reactions/Side Effects**

**CNS:** SEIZURES, confusion, dizziness, drowsiness, headache, insomnia, restlessness, seizures.

**EENT:** blurred vision, tinnitus.

**CV:** HYPERTENSIVE CRISIS, edema, orthostatic hypotension, tachycardia.

**GI:** abdominal pain, anorexia, diarrhea, dry mouth, nausea, hepatitis, constipation, abdominal distention, nausea.

**GU:** sexual dysfunction, urinary retention.

**Hemat:** AGRANULOCYTOSIS, leukopenia, thrombocytopenia.

**Derm:** alopecia, rashes, photosensitivity, erythema.

**Musculo-Skeletal:** muscle spasm.

**Other:** Fever, asymptomatic bacteremia.

**Interactions**

**Drug-Drug:** Serious, potentially fatal adverse reactions may occur with concurrent use of other antidepressants (SSRIs, SNRIs, bupropion, tricyclics, tetracyclics, nefazodone, trazodone), carbamazepine, cyclobenzaprine, procarbazine, selegiline, linezolid, carbamazepine, cyclobenzaprine, bupropion, buspirone, sympathomimetics, other MAO inhibitors, decongestants, narcotics, alcohol, general anesthetics, decongestants, antihistamines, or tricyclics. Concurrent use of medications containing high concentrations of tyramine, licorice. Use cautiously in: - Patients who may be suicidal or have a history of drug dependency. - Patients who may be prescribed to use dieting products containing tyramines or other similar substances. - Patients undergoing electroconvulsive therapy.

**Drug-Natural Products:** Serious, potentially fatal adverse effects (serotonin syndrome) may occur with concurrent use of St. John’s wort and SAMe. Hypertensive crises may occur with concurrent use of meperidine.

**Hypertension or hypotension, coma, seizures, respiratory depression, and death may occur with meperidine.** Concurrent use with decongestants may produce psychosis or bizarre behavior. Hypertension may occur with concurrent use of hydralazine. Avoid using within 2 wk of each other. Additive hypotension may occur with antihypertensives; spinal anesthesia, epidural, or barbiturates. Additive hypotension may occur with triptans.

**Drug-Natural Products:** Serious, potentially fatal adverse effects (serotonin syndrome) may occur with concurrent use of St. John’s wort and SAMe. Hypertensive crises may occur with large amounts of caffeine-containing herbs (including guarana).

**Adverse Reactions:** Life-threatening, underlines indicate most frequent; strikethrough = discontinued.
Insomnia, headache, tremor, hypomania may occur with ginseng.

Hypertensive crises, disorientation, and memory impairment may occur with tryptophan or supplements containing tryptamine or phenylephedrine.

Drug-Food: Hypertensive crises may occur with ingestion of foods containing high concentrations of tyramine. Consumption of foods or beverages with high caffeine content increases the risk of hypertension and arrhythmias.

Route/Dosage
PO (Adults): 10 mg initially in 2 divided doses (morning and afternoon); after 2 wk can increase by 10 mg/day, at 1–2 wk intervals, up to 30 mg/day.

NURSING IMPLICATIONS
Assessment
- Assess mental status, mood, changes, and anxiety level frequently. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- Monitor BP and pulse rate before and frequently during therapy. Report significant changes promptly.
- Monitor intake and output ratios and daily weight. Assess patient for peripheral edema and urinary retention.
- Lab Test Considerations: Assess hepatic function periodically during prolonged or high-dose therapy.
- Monitor serum glucose closely in diabetic patients; hypoglycemia may occur.

Toxicity and Overdose:
- Concurrent ingestion of tyramine-rich foods and many medications may result in a life-threatening hypertensive crisis. Signs and symptoms of hypertensive crisis include chest pain, tachycardia or bradycardia, severe headache, nausea, vomiting, photosensitivity, neck stiffness, sweating, and enlarged pupils. Treatment includes IV phentolamine.
- Symptoms of overdose include anxiety, irritability, tachycardia, hypotension, respiratory distress, diarrhea, nausea, vomiting, desipramine toxicity, neck stiffness, and enlarged pupils. Treatment includes induction of vomiting or gastric lavage and supportive therapy as symptoms arise.

Potential Nursing Diagnoses
Indications (Patient/Family Teaching)
Noncompliance
Implementation
- Do not administer these medications in the evening because the psychostimulating effects may cause insomnia or other sleep disturbances.
- PO: Tablets may be crushed and mixed with food or fluids for patients with difficulty swallowing.

Patient/Family Teaching
- Instruct patient to take medication as directed. Take missed doses if remembered within 2 hr; otherwise, omit and return to regular dosage schedule. Reduce dosage time as withdrawal symptoms (nausea, vomiting, diarrhea, agitation, confusion, seizures) may occur.
- Caution patient to avoid alcohol, CNS depressants, OTC drugs, and foods or beverages containing tyramine or excessive caffeine during and for at least 2 wk after therapy has been discontinued; they may precipitate a hypertensive crisis. Instruct patient to notify health care professional immediately if symptoms of hypertensive crisis (e.g., severe headache, palpitations, chest or throat tightness, sweating, dizziness, neck stiffness, nausea, or vomiting) develop.
- Instruct parents or guardians of children to contact health care professional immediately if child exhibits any suicidal thoughts or behaviors (e.g., worsening depression, new or worsening anxiety, agitation, panic attacks, insomnia, new or worsening irritability, violent behavior, impulsive actions, excessive talking, unusual changes in mood or behavior).

- May cause dizziness or drowsiness. Caution patient to avoid driving and other activities requiring alertness until response to medication is known.
- Caution patient to change positions slowly to minimize orthostatic hypotension. Geriatric patients are at increased risk for this side effect.
- Instruct patient to consult with health care professional before taking any new prescription, OTC, or herbal product.
- Advise patient to notify health care professional of any dry mouth, urinary retention, or constipation occurs. Frequent rinses, good oral hygiene, and sugarless candy or gum may diminish dry mouth. An increase in fluid intake, fiber, and exercise may prevent constipation.
- Advise patient to notify health care professional of any medication regimen before surgery. If possible, therapy should be discontinued at least 2 wk before surgery.
- Instruct patient in carry identification describing medication regimen at all times.
Emphasize the importance of participation in psychotherapy if recommended by health care professional and follow-up exam to evaluate progress.

**Evaluation/Desired Outcomes**

- Improved mood in depressed patients.
- Decreased anxiety.
- Increased appetite.
- Improved energy level.
- Improved sleep.

Patients may require 3–6 wk of therapy before therapeutic effects of medication are seen.

Why was this drug prescribed for your patient?