amitriptyline hydrochloride

Apo-Amitriptyline, Elavil, Endep, Levate[Canada], Novotriptyn[Canada]

Pharmacologic class: Tricyclic compound

Therapeutic class: Antidepressant

Pregnancy risk category D

Action

Unknown; inhibits norepinephrine and serotonin reuptake at presynaptic neuron, increasing levels of these neurotransmitters in brain; also has sedative, anticholinergic, and mild peripheral vasodilating effects

Availability

Injection: 10 mg/ml
Syrup: 10 mg/5 ml
Tablets: 10 mg, 25 mg, 50 mg, 75 mg, 100 mg, 150 mg

Indications and dosages

➢ Depression (often given in conjunction with psychotherapy)

Adults: 75 mg P.O. daily in divided doses; may increase gradually to 150 mg/day. Or start with 50 to 100 mg P.O. at bedtime, and increase by 25 to 50 mg as needed to a total dosage of 150 mg. Hospitalized patients initially may receive 100 mg P.O. daily, with gradual increases as needed to a total dosage of 300 mg P.O. With I.M. use, give 20 to 30 mg q.i.d.

Dosage adjustment

- Adolescents
- Elderly patients
- Outpatients

Off-label uses

- Analgesic adjunct for phantom limb pain or chronic pain

Contraindications

- Hypersensitivity to drug or other tricyclic antidepressants (TCAs)
- Monoamine oxidase (MAO) inhibitor use within past 14 days
- Impaired renal or hepatic function
- Children younger than age 12

Administration

- Administer full dose at bedtime to minimize orthostatic hypotension.
- Give injectable form by I.M. route only.
- Don't withdraw drug suddenly; instead, taper dosage gradually.
- If patient is scheduled for surgery, discuss dosage tapering with prescriber.

Route	Onset	Peak	Duration
P.O.	2-4 wk	2-6 wk	Unknown
I.M.	2-3 wk	2-6 wk	Unknown

Adverse reactions

CNS: headache, fatigue, agitation, numbness, paresthesia, peripheral neuropathy, weakness, restlessness, panic, anxiety, dizziness, drowsiness, difficulty speaking, excitement, hypomania, psychosis exacerbation, extrapyramidal effects, poor coordination, fatigue, hallucinations, insomnia, nightmares, **seizures, coma**

CV: electrocardiogram changes, MI, tachycardia, hypertension, orthostatic hypotension, **arrhythmias, heart block**

EENT: blurred vision, dry eyes, mydriasis, abnormal visual accommodation, increased intraocular pressure, tinnitus

GI: nausea, vomiting, constipation, dry mouth, epigastric pain, anorexia, **paralytic ileus**

GU: urine retention, delayed voiding, urinary tract dilation, gynecomastia

Hematologic: blood dyscrasias, agranulocytosis, thrombocytopenia, thrombocytopenic purpura, leukopenia

Metabolic: changes in blood glucose level
Skin: photosensitivity rash, urticaria, flushing, diaphoresis
Other: increased appetite, weight gain, high fever, edema, hypersensitivity reaction

Interactions

Drug-drug. *Activated charcoal:* decreased amitriptyline absorption
Adrenergics, anticholinergics, anticholinergic-like drugs: increased anticholinergic effects
Amiodarone, cimetidine, quinidine, ritonavir: increased amitriptyline effects
Barbiturates: decreased amitriptyline blood level, increased CNS and respiratory effects
Clonidine: hypertensive crisis
CNS depressants (including alcohol, antihistamines, opioids, sedative-hypnotics): increased CNS depression
Drugs metabolized by cytochrome P450 enzyme 2D6 (such as other antidepressants, phenothiazines, carbamazepine, class 1C antiarrhythmics): decreased amitriptyline clearance, possibly causing toxicity
Guanethidine: antagonism of antihypertensive action
Levodopa: delayed or decreased levodopa absorption, hypertension
MAO inhibitors: hypotension, tachycardia, potentially fatal reactions
Rifabutin, rifampin, rifapentine: decreased amitriptyline blood level and effects
Selective serotonin reuptake inhibitors: increased risk of toxicity
Sympathomimetics: increased pressor effect of direct-acting sympathomimetics (epinephrine, norepinephrine), possibly causing arrhythmias; decreased pressor effect of indirect-acting sympathomimetics (ephedrine, metaraminol)
Drug-diagnostic tests. *Eosinophils, liver function tests:* increased values
Glucose, granulocytes, platelets, white blood cells: increased or decreased levels
Drug-herb. *Angel's trumpet, jimsonweed, scopolia:* increased anticholinergic effects
Chamomile, hops, kava, skullcap, valerian: increased CNS depression
St. John's wort: decreased drug blood level and reduced efficacy
Drug-behaviors. *Alcohol use:* increased CNS sedation
Smoking: increased drug metabolism and altered effects
Sun exposure: increased risk of photosensitivity reactions

Precautions

Use cautiously in:
- seizures, cardiovascular disease, renal or hepatic impairment, urine retention, hyperthyroidism, increased intraocular pressure, closed-angle glaucoma, prostatic hypertrophy, bipolar disorder, schizophrenia, paranoia
- elderly patients
- pregnant or breastfeeding patients.

Patient monitoring

- Evaluate for signs and symptoms of psychosis; if present, discuss possible dosage change with prescriber.
- Assess for changes in patient's mood or mental status.
- Monitor for signs and symptoms of depression and assess for suicidal ideation.
- Check blood pressure for orthostatic hypertension.
- Monitor complete blood count with white cell differential, glucose levels, and liver function test results.

Patient teaching

- Instruct patient to contact prescriber if he experiences severe mood changes or suicidal thoughts.
- Caution patient to avoid driving and other hazardous activities until he knows how drug affects concentration and alertness.

• Tell patient that drug may cause temporary blood pressure decrease if he stands up suddenly. Advise him to rise slowly and carefully.
• Tell patient to minimize GI upset by eating small, frequent servings of food and drinking plenty of fluids.
• Inform patient that he'll undergo frequent blood testing during therapy.