Venlafaxine (ven-la-fax-een)

**Classification**
Therapeutic: antidepressants, antianxiety agents
Pharmacologic: selective serotonin/norepinephrine reuptake inhibitors

**Pregnancy Category C**

**Indications**

**Action**
Inhibits serotonin and norepinephrine reuptake in the CNS.

**Therapeutic Effects:**
Decrease in panic attacks. Decrease in depressive symptomatology, with fewer relapses/recurrences. Decreased anxiety. Decrease in premenstrual symptoms.

**Pharmacologic:**
 Selective serotonin/norepinephrine reuptake inhibitors

**Pharmacokinetics**

**Absorption:**
92–100% absorbed after oral administration.

**Distribution:**
Extensive distribution into body tissues.广电

**Metabolism and Excretion:**
Venlafaxine is extensively metabolized on first pass through the liver (primarily through CYP2D6 enzyme pathway). The small percentage of the population who are poor metabolizers and have lower biologic activity (poor metabolizers) have antidepressant activity. 5% of venlafaxine is excreted unchanged in urine; 30% of the active metabolite is excreted in urine. ODV—O-desmethylvenlafaxine (ODV), has antidepressant activity; 5% of venlafaxine is converted to ODV in the liver (primarily through CYP2D6 enzyme pathway).

**Half-life:**
Venlafaxine—3–5 hr; ODV—9–11 hr (both are shorter in hepatic/renal impairment).

**Contraindications/Precautions**

**Contraindicated in:**
Hypersensitivity; Concurrent use of MAO inhibitors or MAO-inhibitor like drugs (linezolid or methylene blue). Concurrent use with MAO-inhibitor like drugs (may resume venlafaxine therapy 24 hr after last dose of linezolid or methylene blue, whichever comes first). Contraindicated in patients receiving linezolid or methylene blue. Contraindicated if serotonin syndrome or toxicity in the neonate is a concern when venlafaxine is taken during the 3rd trimester. Contraindicated for serious adverse reactions in infants. Do not start therapy in patients receiving methylene blue.

**Use Cautiously in:**
Cardiovascular disease, including hypertension; Hepatic impairment; impaired renal function; impaired cognitive function; History of seizures or neurologic impairment; History of mania or manic episodes or bipolar disorder; History of or potential suicidal tendency or risk of perforation; Risk of serotonin syndrome; Concurrent use contraindicated; Drugs that affect serotonergic neurotransmitter systems, including selective serotonin reuptake inhibitors, SNRIs, atypical antipsychotics, buspirone, tramadol, and triptans.

**Adverse Reactions/Side Effects**

**CNS:** Headache, dizziness, anxiety, agitation, confusion, depersonalization, drowsiness, emotional lability, Tourette's syndrome, anxiety, tremor, insomnia, nervousness, tachycardia, weight loss. Other psychiatric disorders. Observe closely for suicidality and behavior changes.

**GU:** Constipation, diarrhea, frequency, urgency, impotence. Urinary retention.

**Derm:** Rash, pruritus, urticaria, photosensitivity, paresthesia, rash, alopecia.

**EENT:** Rhinitis, sinusitis, ecchymoses, eye irritation, dental caries, dry mouth.

**CV:** Hypertension, chest pain, palpitations, tachycardia, peripheral edema, tachycardia. Congenital heart disease.

**Respiratory:** Bronchitis, rhinitis, sinusitis, headache, nausea, vomiting.

**Other:** Changes in taste, photosensitivity, skin rash, itching, painful injection sites, swelling, ecchymosis, edema, muscle cramps, sweating, hypotension, dizziness, yawning, bleeding.

**Interactions**

Drug-Drug: Concurrent use with MAO inhibitors may result in serotonin syndrome, potentially fatal reactions (wait at least 2 wk after stopping MAO inhibitor before initiating venlafaxine; wait at least 1 wk after stopping venlafaxine before starting MAO inhibitor). Concurrent use with MAO-inhibitor like drugs, such as linezolid or methylene blue may result in serotonin syndrome; concurrent use contraindicated; do not start therapy in patients receiving linezolid or methylene blue (linezolid or methylene blue need to be started in a patient receiving venlafaxine, immediately discontinue venlafaxine and monitor for signs/symptoms of serotonin syndrome for 2 wk or until 24 hr after last dose of linezolid or methylene blue, whichever comes first). Concurrent use with alcohol or other CNS depressants, including sedatives/hypnotics, antihistamines, and opioid analgesics in depressed patients is not recommended. Drugs that affect serotonergic neurotransmitter systems, including selective serotonin reuptake inhibitors, SNRIs, atypical antipsychotics, buspirone, tramadol, and triptans.
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NURSING IMPLICATIONS

Assessment
- Assess mental status and mood changes. Inform health care professional if patient demonstrates significant increase in anxiety, nervousness, or insomnia.
- Assess suicidal tendencies, especially in early therapy. Restrict amount of drug available to patient. Risk may be increased in children, adolescents, and adults ≥ 18 yr.
- Monitor BP before and periodically during therapy. Sustained hypertension may be dose related; discontinue if hypertension occurs.
- Assess for serotonin syndrome (mental changes [agitation, hallucinations, coma], autonomic instability [tachycardia, labile BP, hyperthermia], neuromuscular aberrations [hyperreflexia, incoordination], and/or GI symptoms [nausea, vomiting, diarrhea]), especially in patients taking other serotonergic drugs (SSRIs, SNRIs, triptans).

Lab Test Considerations: Monitor CBC with differential and platelet count periodically during therapy. May cause anemia, leukocytosis, leukopenia, thrombocytopenia, basophilia, and eosinophilia.
- May cause an increase in serum alkaline phosphatase, bilirubin, AST, ALT, BUN, and creatinine.
- May also cause an increase in serum cholesterol.
- May cause electrolyte abnormalities (hyperglycemia or hypoglycemia, hyperkalemia or hypokalemia, hyperuricemia, hyperphosphatemia or hypophosphatemia, and hyponatremia).
- May cause false-positive immunoassay screening tests for phencyclidine (PCP) and amphetamine.

Potential Nursing Diagnoses
- Ineffective coping (indications)
- Risk for injury (side effects)

Implementation
- Do not confuse Effexor with Effexor XR.
- PO: Administer venlafaxine with food.
- Extended-release capsules should be swallowed whole; do not crush, break, or chew.

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CONTINUOUS

venlafaxine

- Extended-release capsules may be opened and contents sprinkled on a spoonful of applesauce. Take immediately and follow with a glass of water. Do not store mixture for later use.

Patient/Family Teaching

- Instruct patient to take venlafaxine as directed at the same time each day. Take missed doses as soon as possible unless almost time for next dose. Do not double doses or discontinue abruptly. Patients taking venlafaxine for >6 wk should have dose gradually decreased before discontinuation.

- Advise patient, family, and caregivers to look for suicidality, especially during early therapy or dose changes. Notify health care professional immediately if thoughts about suicide or dying, attempts to commit suicide; new or worse depression or anxiety; agitation or restlessness; panic attacks; insomnia; new or worse irritability; aggressiveness; acting on dangerous impulses, manic, or other changes in mood or behavior or if symptoms of serotonin syndrome occur.

- May cause drowsiness or dizziness. Caution patient to avoid driving or other activities requiring alertness until response to the drug is known.

- Instruct patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and consult health care professional before taking any new medications. Caution patient to avoid taking alcohol or other CNS-depressant drugs during therapy.

- Instruct patient to notify health care professional if signs of allergy (rash, hives) occur.

- Instruct female patients to inform health care professional if pregnancy is planned or suspected or if breast feeding.

- Emphasize the importance of follow-up exams to monitor progress. Encourage patient participation in psychotherapy.

Evaluation/Desired Outcomes

- Increased sense of well-being.
- Renewed interest in surroundings. Need for therapy should be periodically reassessed. Therapy is usually continued for several months.
- Decreased anxiety.

Why was this drug prescribed for your patient?