# Venlafaxine (Effexor)

Indications:

- No FDA indications in pediatric population
- However, can be used off-label for conditions, including major depressive disorder, generalized anxiety disorder, panic disorder, social anxiety disorder, and OCD

Mechanism of Action:

- Serotonin and norepinephrine reuptake inhibitor
- Undergoes extensive pre-systemic metabolism in the liver, catalyzed by CYP 2D6
- Primarily excreted via the kidneys
- Steady-state concentrations are reached within 3 days, but therapeutic effects take 3-4 weeks
- Relatively short half-life – patients should adhere to strict dosing schedule
- Avoid use with MAOIs

Dosage Forms:

- Venlafaxine extended-release tablets and capsules (hydrochloride): 37.5mg, 75mg, and 150mg dosed daily
- Venlafaxine tablets 12.5mg, 25mg. 37.5mg, 50mg, 75mg, and 100mg dosed 2-3 times per day
- Venlafaxine extended-release (besylate): 112.5mg dosed daily (rarely used)

Dosage guidelines:

- Start 37.5mg extended-release (hydrochloride) daily, can titrate slowly based on response and tolerability
- Maximum dose recommendations based on weight:
    - <40kg = 112.5mg daily
    - 40-50kg = 150mg daily
    - >50mg = 225mg daily
- Extended-release formulation preferred due to ease of once daily dosing
- If patient is unable to swallow pills, the capsule can be opened and contents sprinkled onto spoonful of applesauce

Side Effects:

- Most common include nausea, dry mouth, sweating, constipation, and sexual dysfunction (abnormal ejaculation, decreased libido)
- Like other antidepressants, venlafaxine has a “black box” warning about suicidal thoughts and behaviors in children, adolescents, and young adults
- Concurrent use with other serotonergic agents may increase risk for serotonin syndrome
- Serious side effects (rare): hypertension, hyponatremia, manic shift in patients with bipolar disorder

Clinical Pearls:

- SSRIs are first-line treatment for depression, but consider an SNRI, such as venlafaxine, if patient has failed two adequate SSRI trials
- When stopped abruptly, patients may experience symptoms, including irritability, lethargy, emotional lability, tinnitus, and electric-like shocks; a gradual dose reduction over a period of weeks to months is recommended
- No routine lab monitoring is required; however, vital signs should be regularly monitored, given small risk of sustained elevated blood pressure

https://www.accessdata.fda.gov/drugsatfda_docs/label/2017/022104s015lbl.pdf

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