DUOXetine (doo-lox-e-teen)

Classification
Therapeutic: antidepressants
Pharmacologic: selective serotonin/norepinephrine reuptake inhibitors

Pregnancy Category C

Indications

Action
Inhibits serotonin and norepinephrine reuptake in the CNS. Both antidepressant and pain inhibition are centrally mediated.

Therapeutic Effects:

Pharmacokinetics
Absorption: Well absorbed following oral administration.
Distribution: Unknown.
Protein Binding: High (~90%) protein-bound.
Metabolism and Excretion: Mostly metabolized, primarily by the CYP2D6 and CYP1A2 enzyme pathways.
Half-life: 12 hr.

TIME/ACTION PROFILE (blood levels)
ROUTE ONSET PEAK DURATION
PO unknown 6 hr 12 hr

Contraindications/Precautions
Contraindicated in: Hypersensitivity. Concurrent use of MAO inhibitors or MAO-like drugs (linezolid or methylene blue). Uncontrolled angle-closure glaucoma. End-stage renal disease. Chronic hepatic impairment or substantial alcohol use (~ risk of hepatotoxicity).

Lactation: Exclusively breastfeed. Discontinue or bottle-feed.

Use Cautiously in:
History of suicide attempt or ideation; History of mania (may activate mania/hypomania); Concurrent use of other centrally acting drugs (~ risk of adverse reactions); History of suicide attempt. Controlled angle-closure glaucoma. Diabetic patients and those with renal impairment (consider lesser initial dose with gradual increase).q Use during 3rd trimester may result in neonatal serotonin syndrome requiring prolonged hospitalization, respiratory and nutritional support.

Pediatric:
Risk of suicide attempt or ideation especially during dose early treatment or dose adjustment. Risk may be greater in children or adolescents (safe use in children/adolescents not established).

Adverse Reactions/Side Effects
CNS: NEUROLEPTIC MALIGNANT SYNDROME, SEIZURES, SUICIDAL THOUGHTS, fatigue, drowsiness, insomnia, activation of mania, dizziness, nightmares.
EENT: blurred vision, q intraocular pressure.
CV: q BP.
GI: hepatotoxicity, appetite, constipation, dry mouth, nausea, diarrhea, q liver enzymes, gastritis, vomiting.
F and E: hyponatremia.
GU: dysuria, abnormal orgasm, erectile dysfunction, libido, rear, incontinence.
Derm: erythema multiforme, STEVENS-JOHNSON SYNDROME, sweating, pruritus, rash.
Neuro: tremor.
Misc: SEROTONIN SYNDROME.

Interactions
Drug-Drug: Concurrent use with MAO inhibitors may result in serious potentially fatal reactions (~ risk of serotonin syndrome). Wait at least 5 days after stopping a serotonin-norepinephrine reuptake inhibitor (SNRI) before starting a MAOI. Concurrent use with MAO-inhibitor-like drugs, such as linezolid or methylene blue (~ risk of serotonin syndrome), cannot be done. Concurrent use must be avoided. Drugs that affect serotonergic neurotransmitter systems, including SNRIs, SSRIs, fentanyl, buspirone, tramadol, and tryptans, should be avoided. Drugs that inhibit CYP2D6, including paroxetine, fluoxe-
tine and quinidine levels of duloxetine and may increase the risk of adverse reactions. Duloxetine also inhibits CYP2D6 and may increase the risk of serious arrhythmias; avoid concurrent use.

Drug-Natural Products: Use with St. John’s wort of serotonin syndrome.

Route/Dosage

PO (Adults): Major depressive disorder—40–60 mg/day (as 20 mg or 30 mg once daily or as 30 mg twice daily) as initial therapy; may be titrated to 60 mg once daily after 1 wk; then 60–120 mg once daily as maintenance therapy. Generalized anxiety disorder—30–60 mg once daily as initial therapy; titrate to 60 mg once daily after 1 wk; then 60–120 mg once daily as maintenance therapy. Somnolence/pain—30–60 mg once daily. Concomitant use may increase the risk of serious arrhythmias; avoid concurrent use.

Renal Impairment

PO (Adults): Start with lower dose and gradually.

Potential Nursing Diagnoses

Indications

Diabetes mellitus, hyperlipidemia, hypertension, obesity, renal dysfunction, smoking, or other cardiovascular risk factors.

Adverse Reactions

Depression:

Assess mental status (orientation, mood, and behavior). Inform health care professional if patient demonstrates significant increase in anxiety, nervousness, or insomnia.

Pain and Fibromyalgia:

Assess intensity, quality, and location of pain periodically during therapy. May require several weeks for effects to be seen.

Lab Test Considerations:

May cause increase in ALT, AST, bilirubin, CPK, and alkaline phosphatase.

Potential Nursing Diagnoses

Indications

Indications

Adverse Reactions

Implementation

Do not confuse duloxetine with fluoxetine or paroxetine. Do not confuse Cymbalta with Symbyax.

PO: May be administered without regard to meals. Capsules should be swallowed whole; do not crush, chew, or open. Sprinkle contents on foods or liquids; may affect enteric coating.

Patient/Family Teaching

Instruct patient to take duloxetine as directed at the same time each day. Take missed doses as soon as possible unless time for next dose. Do not stop abruptly; may cause dizziness, headache, nausea, diarrhea, paresthesia, insomnia, anxiety, hyperhidrosis, and fatigue. Must be decreased gradually.

Instruct patient and family to be alert for emergence of anxiety, agitation, panic attacks, insomnia, irritability, hostility, impulsivity, akathisia, hypomania, mania, worsening of depression and suicidal ideation, especially during early antidepressant therapy. If these symptoms occur, notify health care professional.

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CONTINUED

DULoxetine

- May cause drowsiness. Caution patient to avoid driving or other activities requir-
ing alertness until response to medication is known.

- Instruct patient to notify health care professional if signs of serotonin syndrome (mental status changes: agitation, hallucinations, coma; autono-
mic instability: tachycardia, labile BP, hyperthermia; neuromuscular ab-
ervations: hyperreflexia, incoordination; and/or gastrointestinal symptoms: nausea, vomiting, diarrhea; liver damage [pruritus, dark
serum, jaundice, right upper quadrant tenderness, unexplained "flu-
like" symptoms) or rash occur.

- Advise patient to consult health care professional during discontinu-
ance therapy.

- Instruct patient to notify health care professional if pregnancy is planned or sus-
ppected or if breast feeding. Encourage any patient exposed to duloxetine during
pregnancy to register with the Cymbalta Pregnancy Registry at 1-866-814-6975 or

Evaluation/Desired Outcomes

- Increased sense of well-being.

- Renewed interest in surroundings. Need for therapy should be periodically reas-
essed. Patients may notice improvement within 1– 4 wk, but should be advised to
continue therapy as directed. Therapy is usually continued for several months.

- Decrease in neuropathic pain associated with diabetic peripheral neuropathy.

- Decrease in chronic musculoskeletal pain and pain and stiffness associated with
fibromyalgia.

- Decrease in anxiety.

Why was this drug prescribed for your patient?

- = Generic name. ■ Genetic implication. D = Discontinued