mirtazapine (meer-ta-za-pan)
Benzene, Imipramine Subclass
Classification
Therapeutic: antidepressants
Pharmacologic: tetracyclic antidepressants
Pregnancy Category C.

Indications
Major depressive disorder. Unlabeled Use: Panic disorder; Generalized anxiety disorder (GAD); Post-traumatic stress disorder (PTSD).

Action
Potentiates the effects of norepinephrine and serotonin. Therapeutic Effects: Antidepressants
Classifications
Remeron, Remeron Soltabs (meerpertin)
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Pregnancy Category C

Contraindications/Precautions
Contraindicated in: Hypersensitivity. Concurrent use of MAO inhibitor drugs or MAO-like drugs (linezolid or methylene blue). Use Cautiously in: History of seizures; History of suicide attempt; History of mania/hypomania; Patients with hepatic or renal impairment; GI: Safety not established. Lactation: Discontinue drug or bottle-feed. Pediatric: Safety not established. Pedi: Safety may be greater in children or adolescents; q 1 wk may be started in a patient receiving mirtazapine, immediately discontinue mirtazapine and monitor for signs/symptoms of serotonin syndrome for 2 wk or until risk of serotonin syndrome with mirtazapine therapy 24 hr after last dose of linezolid or methylene blue; Drugs may need to be started in a patient receiving mirtazapine, immediately discontinue mirtazapine and monitor for signs/symptoms of serotonin syndrome for 2 wk or until risk of serotonin syndrome with mirtazapine therapy 24 hr after last dose of linezolid or methylene blue; Concurrent use contraindicated; do not start therapy if serotonin syndrome has been diagnosed. Safety not established. OB: Safety not established. Use Cautiously in: Contraindicated in:

Indications
PO 1–2 wk 6 wk or more unknown

ONSET PEAK DURATION

Pharmacokinetics
Half-life: 20–40 hr.
Metabolism and Excretion:
Protein Binding: 85%.
Distribution: Unknown. Well absorbed but rapidly metabolized, resulting in 50% bioavailability.

Absorption:
Unknown.

Pharmacodynamics
Unlabeled Use: Major depressive disorder.

Indications
Pregnancy Category C

Pharmacologic: antidepressants
Therapeutic: Classification

Interactions
Drug-Drug: May cause hypertension, seizures, and death when used with MAO inhibitors; do not use within 14 days of MAO inhibitor therapy. Concurrent use with MAO inhibitor drugs, such as linezolid or methylene blue may risk of serotonin syndrome; concurrent use contraindicated, do not intertreat in patients receiving linezolid or methylene blue; if linezolid or methylene blue need to be started in a patient receiving mirtazapine, immediately discontinue mirtazapine 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 (may resume mirtazapine therapy 24 hr after last dose of linezolid or methylene blue). Drugs that affect serotonin neurotransmitter system, including tetracyclic antidepressants, SNRIs, selective serotonergic agents (SSRIs, SnSRI; venlafaxine, trazodone) risk of serotonin syndrome. (20 depression with other CNS depressants, including alcohol and benzodiazepines, tricyclic antidepressants, venlafaxine, bupropion, tramadol, and olanzapine) List of medications that carry risk of serotonin syndrome; St. John’s wort, valerian, skullcap, chamomile, or hops can risk of serotonin syndrome with St. John’s wort and SAMe.

Contraindications/Precautions
Contraindicated in: Hypersensitivity. Concurrent use of MAO inhibitor drugs or MAO-like drugs (linezolid or methylene blue).

Use Cautiously in: History of seizures; History of suicide attempt; History of mania/hypomania; Patients with hepatic or renal impairment; GI: Safety not established. Lactation: Discontinue drug or bottle-feed. Pediatric: Safety not established. Pedi: Safety may be greater in children or adolescents; q 1 wk may be started in a patient receiving mirtazapine, immediately discontinue mirtazapine and monitor for signs/symptoms of serotonin syndrome for 2 wk or until risk of serotonin syndrome with mirtazapine therapy 24 hr after last dose of linezolid or methylene blue; Concurrent use contraindicated; do not start therapy if serotonin syndrome has been diagnosed. Safety not established. OB: Safety not established. Use Cautiously in: Contraindicated in:
Route/Dosage

**PO (Adults):** 15 mg/day as a single bedtime dose initially; may be ↑ q 1–2 wk up to 45 mg/day.

**NURSING IMPLICATIONS**

**Assessment**
- Assess mental status (orientation, mood, behavior) frequently. Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.
- Monitor closely for changes in behavior that could indicate the emergence or worsening of suicidal thoughts or behavior or depression.
- Assess weight and BMI initially and throughout therapy. For overweight/obese individuals, obtain fasting blood glucose and cholesterol levels. Refer as appropriate for nutritional/weight management and medical management.
- Monitor BP and pulse rate periodically during initial therapy. Report significant changes.
- Monitor for seizure activity in patients with a history of seizures or alcohol abuse. Establish seizure precautions.
- Assess for serotonin syndrome (mental changes [agitation, hallucinations, coma], autonomic instability [tachycardia, labile BP, hyperthermia], neuromuscular abnormalities [hyperreflexia, incoordination], and/or GI symptoms [nausea, vomiting, diarrhea]), especially in patients taking other serotonergic drugs (SSRIs, SNRIs, triptans).
- Monitor for development of neuroleptic malignant syndrome (tremor, rigidity, akathisia, dysarthria, alterations in consciousness). Discontinue mirtazapine and notify health care professional immediately if these symptoms occur.
- Lab Test Considerations: Assess CBC and hepatic function before and periodically during therapy.

**Potential Nursing Diagnoses**

- Anxiety (Indications)
- Ineffective coping (Indications)
- Imbalanced nutrition: more than body requirements (Side Effects)

**Implementation**

- May be taken without regard to food.
- For orally disintegrating tablets, do not attempt to push through foil backing with dry hands; peel back backing and remove tablet. Immediately place tablet on tongue; tablet will dissolve in seconds; then swallow with saliva. Administration with liquids is not necessary.
- May cause drowsiness and dizziness. Caution patient to avoid driving and other activities requiring alertness until response to drug is known.
- Encourage patient and family to be alert for emergence of anxiety, agitation, panic attacks, insomnia, irritability, hostility, impulsivity, akathisia, mania, worsening of depression and suicidal ideation, especially during early antidepressant therapy. Assess symptoms on a day-to-day basis as changes may be abrupt. If these symptoms occur, notify health care professional immediately.
- Caution patient to take mirtazapine as directed. Take missed doses as soon as remembered, if almost time for next dose, skip missed dose and return to regular schedule. If single bedtime dose regimen is used, do not take missed dose in morning; see usual route of administration. Gradual dose reduction may be required.
- May cause hypotension and syncope. Caution patient to avoid situations requiring alertness until response to drug is known.
- May cause drowsiness and dizziness. Caution patient to change positions slowly to minimize orthostatic hypotension.
- Advise patient to avoid alcohol or other CNS depressant drugs during and for at least 3–7 days after therapy has been discontinued.
- Instruct patient to notify health care professional of symptoms of serotonin syndrome (mental changes: agitation, hallucinations, coma; autonomic instability: tachycardia, labile BP, hyperthermia; neuromuscular abnormalities: hyperreflexia, incoordination; and/or gastrointestinal symptoms: nausea, vomiting, diarrhea). Discontinue mirtazapine and notify health care professional immediately if these symptoms occur.
- Advise patient to notify health care professional if 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 not to drink alcohol or use other CNS depressant drugs during and for at least 3–7 days after therapy has been discontinued.
- Advise patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to consult with health care professional before taking other medications, especially St. John’s Wort.

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mirtazapine

- Advise patient to notify health care professional of medication regimen before treatment or surgery.
- Therapy for depression may be prolonged. Emphasize the importance of follow-up visits to monitor effectiveness and side effects.

Evaluation/Desired Outcomes

- Resolution of the symptoms of depression.
- Increased sense of well-being.
- Renewed interest in surroundings.
- Increased appetite.
- Improved energy level.
- Improved sleep.
- Therapeutic effects may be seen within 1 wk, although several wk are usually necessary before improvement is observed.

Why was this drug prescribed for your patient?