OLANZapine  (oh-lan-za-peen)

Classifications: Therapeutic: antipsychotics, mood stabilizers
Pharmacologic: thienobenzodiazepines

Pregnancy Category C

Indications
Schizophrenia. Acute therapy of mania or mixed episodes associated with bipolar I disorder (as monotherapy [adults and adolescents] or with lithium or valproate [adults only]). Maintenance therapy of bipolar I disorder. Acute agitation due to schizophrenia or bipolar I disorder (when used with fluoxetine). Treatment-resistant depression (when used with fluoxetine).

Unlabeled Use: Management of anorexia nervosa. Treatment of nausea and vomiting related to highly emetogenic chemotherapy.

Action
Antagonizes dopamine and serotonin type 2 in the CNS. Also has anticholinergic, anti-histaminic, and anti–α1-adrenergic effects. Therapeutic Effects: Decreased manifestations of psychoses.

Pharmacokinetics
Absorption: Well absorbed but rapidly metabolized by first-pass effect, resulting in 60% bioavailability. Conventional tablets and orally disintegrating tablets (Zydis) are bioequivalent. IM administration results in significantly higher blood levels (5 times that of oral).

Distribution: Extensively distributed.

Protein Binding: 93%.

Metabolism and Excretion: Highly metabolized (mostly by the hepatic P450 CYP 1A2 system); 7% excreted unchanged in urine.

Half-life: 21–54 hr.

Contraindications/Precautions
Contraindicated in: Hypersensitivity; Lactation: Discontinue drug or bottle feed; Phenylketonuria (orally disintegrating tablets contain aspartame).

Use Cautiously in: Patients with hepatic impairment; Patients at risk for aspiration; Cardiovascular or cerebrovascular disease; History of seizures; History of attempted suicide; Diabetes or risk factors for diabetes (may worsen glucose control); Prostatic hyperplasia; Angle-closure glaucoma; History of paralytic ileus; Dysphagia and aspiration have been associated with antipsychotic drug use; use with caution in patients at risk for aspiration; OB: Neonates at risk for neonatal abstinence syndrome; OB: Neonates at risk for extrapyramidal symptoms and withdrawal after delivery when exposed during the 3rd trimester; use only if maternal benefit outweighs risk to fetus; Pedi: Children 13 yr (safety not established); adolescents at risk for weight gain and hyperlipidemia; Geri: May require pdoses; risk of mortality in elderly patients treated for dementia-related psychosis.

Adverse Reactions/Side Effects
CNS: NEUROLEPTIC MALIGNANT SYNDROME, SEIZURES, SUICIDAL THOUGHTS, agitation, delirium, dizziness, headache, restlessness, sedation, weakness, tremor, dystonia, insomnia, mood changes, personality disorder, speech impairment, tardive dyskinesia.

EENT: amblyopia, rhinitis, sialorrhea, pharyngitis.

Resp: cough, dyspnea.

CV: bradycardia, chest pain, orthostatic hypotension, tachycardia.

GI: constipation, dry mouth, liver enzymes, weight loss or gain, abdominal pain, appetite, nausea, thirst.

GU: impotence, libido, urinary incontinence.

Hemat: AGRANULOCYTOSIS, leukopenia, neutropenia.

Derm: photosensitivity.

Endo: amenorrhea, galactorrhea, goiter, gynecomastia, hyperglycemia.

Metab: dyslipidemia.

MS: hypertonia, joint pain.

Misc: fever, flu-like syndrome.

Interactions
Drug-Drug: Effects may be enhanced by concurrent carbamazepine, cimetidine, or rifampin. Hypotension may occur with antihypertensives. CNS depression may occur with concurrent use of alcohol or other CNS depressants; concurrent use of DMiarepsine and parenteral benzodiazepines should be avoided. Use anticoagulants with caution.

TIME/ACTION PROFILE (antipsychotic effects)

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>unknown</td>
<td>6 hr</td>
<td>unknown</td>
</tr>
<tr>
<td>IM</td>
<td>rapid</td>
<td>15–45 min</td>
<td>2–4 hr</td>
</tr>
</tbody>
</table>

*Blood levels

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Olanzapine

Contents

Rationale/Drug Interactions
Schizophrenia
PO (Adults — Most Patients): 5–10 mg/day initially; may q at weekly intervals by
5 mg/day (target dose/H11005 10 mg/day; not to exceed 20 mg/day).
PO (Adults — Disulfiram- or Nonsmoking Female Patients 66 yr): Initiate
therapy at 5 mg/day.
PO (Children 13–17 yr): 2.5–5 mg/day initially; may q by 2.5–5 mg/day (target
dose/H11005 10 mg/day; not to exceed 20 mg/day).

PO (Adults — Debilitated or Nonsmoking Female Patients 65 yr):
Initiate therapy at 150 mg every 4 weeks.

PO (Children 13–17 yr): 20 mg/day initially; may q by 20 mg/day.

PO (Adults — Declarative or Nondeclarative: Patients 65yr):
Initiate therapy at 150 mg every 4 weeks.

Depressive Episodes Associated with Bipolar I Disorder
PO (Adults): 5 mg/day with fluoxetine 20 mg/day (both given in evening); may q
fluoxetine dose up to 50 mg/day and olanzapine dose up to 12.5 mg/day.
PO (Children 10–17 yr): — 10 mg/day with olanzapine 2.5 mg/day (both given in evening);
may q fluoxetine dose up to 50 mg/day and olanzapine dose up to 12.5 mg/day.

Treatment-Resistant Depression
PO (Adults): 5 mg/day with fluoxetine 20 mg/day (both given in evening); may q
fluoxetine dose up to 50 mg/day and olanzapine dose up to 20 mg/day.

NURSING IMPLICATIONS
Assessment
● Assess mental status (orientation, mood, behavior) before and periodically
during therapy. Monitor closely for notable changes in behavior that could indicate the emergence or worsening of suicidal thoughts or behavior or depression.
● Monitor BP (sitting, standing, supine), ECG, pulse, and respiratory rate before and
frequently during dose adjustment.
● Assess weight and BMI initially and throughout therapy.
● Assess patient carefully when administering medication to ensure that medi-
cation is taken and not hoarded or cheeked.
● Assess fluid intake and bowel function. Increased bulk and fluids in the diet may
help maintain constipation.
● Monitor patient for signs of akathisia (restlessness or desire to keep moving) and
estrausional side effects (tachycardia — difficulty speaking or swallowing,
lack of balance control, full feeling of hands, muscle spasms, twisting, tremor, and dystonia — muscle spasms, twisting motions, turning, inability to
move arms or legs) over 2 mo during therapy and 8–12 wk after therapy has been discontinued. Report these symptoms if they occur; as re-
duction in dose or discontinuation of medication may be necessary. Trihexyphen-
dyl or benztropine may be used to control symptoms.
● Monitor for tardive dyskinesia (uncontrolled rhythmic movement of mouth,
face, and extremities, lip smacking or puckering, pulling of cheeks, uncontrolled
chewing, rapid or worm-like movements of tongue, excessive blinking of eyes).
Report immediately; may be irreversible.
● Monitor for development of neuroleptic malignant syndrome (fever, respira-
tory distress, tachycardia, seizures, diaphoresis, hypertension

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Continued
Zyprexa Relprevv

● Do not confuse Zyprexa (olanzapine) with Celexa (citalopram), quetiapine, Zyrtec (cetirizine), Reprexain (hydrocodone/ibuprofen), Zestril (lisinopril), or Zelapar (selegiline).

Potential Nursing Diagnoses

Impaired oral mucous membrane (Side Effects)

Implementation

● Do not confuse Zyprexa (olanzapine) with Beloc (clonidine), Xanax (alprazolam), Zantac (ranitidine), or Biogaran (cimetidine).

Zyprexa Relprevv is only prescribed through the Zyprexa Relprevv Patient Care Program. Prescribers, pharmacists, and patients must be educated about the program and must comply with the program requirements.

● PO: May be administered without regard to meals.

For orally disintegrating tablets, peel back foil on blister, do not push tablet through foil. Long dry hands, remove from foil and place entire tablet in mouth. Tablet will disintegrate with or without liquid.

● IM: Reconstitute with 2.1 mL of sterile water for injection for a concentration of 5 mg/mL. Solution should be clear and yellow; do not administer solutions that are discolored or contain particulate matter. Inject slowly, deep into muscle. Do not administer IM or subcutaneously. Administer within 1 hr of reconstitution. Discard unused solutions.

For Zyprexa Relprevv: Use gloves when preparing; solution may be irritating to skin. Use with dosett provided by manufacturer. Volume: 150 mg or 210 mg dose with 1.3 mL, 300 mg with 1.8 mL and 455 mg with 2.3 mL of diluent. Insert powder by tapping vial, mix diluent into powder. Remove needle from vial holding tip upright to prevent loss of solution. Engage needle safety device as explained by manufacturer. Push a hard surface and tip sed repeatedly until powder or yellow, dry clumps are visible. Shake vial vigorously until suspension appears smooth and consistent in color and texture. Solution will be yellow and opaque. Allow foam to dissipate. Suspension is stable for 24 hrs at room temperature. If used immediately, shake to resuspend. Concentration: 150 mg/mL. Replace needle with 19 gauge, 1.5 inch or 2 inch for obese patients. Slowly withdraw desired amount from vial. 150 mg = 1 mL, 210 mg = 1.4 mL, 300 mg = 2 mL, 455 mg = 2.7 mL. Administer immediately deep IM gluteal after withdrawing. Do not massage injection site. Patient must be observed for at least 5 hrs after injections for Post Injection Delirium/Sedation Syndrome.

Patient/Family Teaching

Advise patient to take medication as directed and not to skip doses or double up on missed doses. Advise patient to read the Medication Guide prior to starting therapy and with each Rx refill in case of changes. Explain the Zyprexa Relprevv Patient Care Program to patient and encourage patients to enroll in the Zyprexa Relprevv Patient Care Program registry.

Informed patient of possibility of extrapyramidal symptoms and tardive dyskinesia. Informed patient to report these symptoms immediately to health care professional.

Advise patients to change positions slowly to minimize orthostatic hypotension.

Medication may cause drowsiness. Caution patient to avoid driving or other activities requiring alertness until response to the medication is known. Patients receiving Zyprexa Relprevv should not drive for 24 hrs following injection.
Advise patient and family to notify health care professional if thoughts about suicide or dying, attempts to commit suicide; new or worse depression; new or worse anxiety; feeling very agitated or restless; panic attacks; trouble sleeping; new or worse irritability; acting aggressive; being angry or violent; acting on dangerous impulses; an extreme increase in activity and talking, other unusual changes in behavior or mood occur.

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 and alcohol.

Advise patient to use sunscreen and protective clothing when exposed to the sun. Extremes of temperature (exercise, hot weather, hot baths or showers) should also be avoided; this drug impairs body temperature regulation.

Instruct patient to use saliva substitute, frequent mouth rinses, good oral hygiene, and sugarless gum or candy to minimize dry mouth. Consult dentist if dry mouth continues for ≥2 wk.

Advise patient to notify health care professional of medication regimen before treatment or surgery.

Advise patient to notify health care professional promptly if sore throat, fever, unusual bleeding or bruising, rash, symptoms of Post-Injection Delirium/Sedation Syndrome, or weakness, tremors, visual disturbances, dark-colored urine, clay-colored stools, menstrual abnormalities, galactorrhea or sexual dysfunction occur.

Emphasize the importance of routine follow-up exams and continued participation in psychotherapy.

Evaluation/Desired Outcomes

- Decrease in excitable, manic behavior.
- Decrease in positive symptoms (delusions, hallucinations) of schizophrenia.
- Decrease in negative symptoms (social withdrawal, flat, blunted affect) of schizophrenia.
- Increased sense of well-being.
- Decreased agitation.

Why was this drug prescribed for your patient?