

# ZYBIAX (Capsules)

Olanzapine/Fluoxetine (3 /25, 6/25, 6/50, 12/25, 12/50 mg)

**WARNING: SUICIDAL THOUGHTS AND BEHAVIORS AND INCREASED MORTALITY IN ELDERLY PATIENTS WITH DEMENTIA-RELATED PSYCHOSIS**

**Suicidal Thoughts and Behaviors:** Antidepressants increased the risk of suicidal thoughts and behavior in children, adolescents, and young adults in short-term studies. These studies did not show an increase in the risk of suicidal thoughts and behavior with antidepressant use in patients over age 24. In patients of all ages who are started on antidepressant therapy, monitor closely for worsening and emergence of suicidal thoughts and behaviors.

**Zybiax** is not approved for use in children less than 10 years of age

**Increased Mortality in Elderly Patients with Dementia-Related Psychosis:** Elderly patients with dementia-related psychosis is treated with antipsychotic drugs are at an increased risk of death. **Zybiax** is not approved for the treatment of patients with dementia-related psychosis.

**COMPOSITION AND EXCIPIENTS:** each capsule of **Zybiax** contains:

Olanzapine/Fluoxetine 3 /25, 6 /25, 6 /50, 12 /25 or 12 /50 mg.

**Excipients:** Pregelatinized starch, Dimethicone, Sodium lauryl sulfate.

**MECHANISM OF ACTION:** although the exact mechanism of **Zybiax** is unknown, it has been proposed that the activation of 3 monoaminergic neural systems (serotonin, norepinephrine, and dopamine) is responsible for its enhanced antidepressant effect. In animal studies, olanzapine and fluoxetine in combination has been shown to produce synergistic increases in norepinephrine and dopamine release in the prefrontal cortex compared with either component alone, as well as increases in serotonin.

**PHARMACOKINETICS:**

**Absorption:** following a single oral dose of **Zybiax 12/50**, peak plasma concentrations of olanzapine and fluoxetine occur at approximately 4 and 6 hours, respectively. The effect of food on the absorption and bioavailability of **Zybiax** has not been evaluated. It is unlikely that there would be a significant food effect on the bioavailability of **Zybiax**.

**Distribution:** Olanzapine is extensively distributed throughout the body, with a volume of distribution of approximately 1000 L. It is 93% bound to plasma proteins over the concentration range of 7 to 1100 ng/mL.

Over the concentration range from 200 to 1000 ng/mL, approximately 94.5% of fluoxetine is bound in vitro to human serum proteins.

**Metabolism and Elimination:** the half-life of olanzapine ranges from 21 to 54 hours, and apparent plasma clearance ranges from 12 to 47 L/hr. Administration of olanzapine once daily leads to steady-state concentrations in about 1 week. Approximately 57% and 30% of the dose was recovered in the urine and feces, respectively.

Fluoxetine is extensively metabolized in the liver to norfluoxetine. The primary route of elimination appears to be hepatic metabolism to inactive metabolites excreted by the kidney.

**INDICATIONS:**

**Zybiax** is indicated for the treatment of:

• Acute depressive episodes in Bipolar Disorder.

• Treatment resistant depression (Major Depressive Disorder in patient who do not respond to 2 separate trials of different antidepressants of adequate dose and duration).

**CONTRAINDICATIONS:**

Monoamine Oxidase Inhibitors (MAOIs): The use of MAOIs intended to treat psychiatric disorders with **Zybiax** or within 5 weeks of stopping treatment with **Zybiax** is contraindicated because of an increased risk of serotonin syndrome. The use of **Zybiax** within 14 days of stopping an MAOI intended to treat psychiatric disorders is also contraindicated. Starting **Zybiax** in a patient who is being treated with MAOIs such as linezolid or intravenous methylene blue is also contraindicated because of an increased risk of serotonin syndrome.

**Other Contraindications:**

Pimozide and thioridazine prolong the QT interval. **Zybiax** can increase the levels of pimozide and thioridazine. **Zybiax** can also prolong the QT interval.

**WARNINGS AND PRECAUTIONS:**

**Suicidal Thoughts and Behaviors in Children, Adolescents, and Young Adults:** Patients with Major Depressive Disorder (MDD), both adult and pediatric, may experience worsening of their depression and/or the emergence of suicidal ideation and behavior or unusual changes in behavior.

**All patients being treated with antidepressants for any indication should be monitored appropriately and observed closely for clinical worsening, suicidality, and unusual changes in behavior.**

Families and caregivers of patients being treated with antidepressants for Major Depressive Disorder or other indications, both psychiatric and non-psychiatric, should be alerted about the need to monitor patients for the emergence of agitation, irritability, unusual changes in behavior, and the other symptoms described above, as well as the emergence of suicidality, and to report such symptoms immediately to health care providers. Such monitoring should include daily observation by families and caregivers.

**Increased Mortality in Elderly Patients with Dementia-Related Psychosis: Elderly patients with dementia-related psychosis is treated with antipsychotic drugs are at an increased risk of death. Zybiax is not approved for the treatment of patients with dementia related psychosis.**

Cerebrovascular adverse events (CVAE) (e.g., stroke, transient ischemic attack), including fatalities, were reported in patients in trials of olanzapine in elderly patients with dementia-related psychosis. Olanzapine and **Zybiax** are not approved for the treatment of patients with dementia-related psychosis.

**Neuroleptic Malignant Syndrome (NMS):** A potentially fatal symptom complex sometimes referred to as NMS has been reported in association with administration of antipsychotic drugs, including olanzapine.

The management of NMS should include:

1) Immediate discontinuation of antipsychotic drugs and other drugs not essential to concurrent therapy.

2) Intensive symptomatic treatment and medical monitoring, and

3) Treatment of any concomitant serious medical problems for which specific treatments are available. There is no general agreement about specific pharmacological treatment regimens for NMS. If after recovering from NMS, a patient requires treatment with an antipsychotic, the patient should be carefully monitored, since recurrences of NMS have been reported.

**Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS):** DRESS has been reported with olanzapine exposure. Discontinue **Zybiax** if DRESS is suspected.

**Metabolic Changes:** Atypical antipsychotic drugs have been associated with metabolic changes including hyperglycemia, dyslipidemia, and weight gain.

**Angle-Closure Glaucoma:** **Zybiax** may trigger an angle-closure attack in glaucoma patients.

**Weight Gain:** Potential consequences of weight gain should be considered prior to starting **Zybiax**. Patients receiving this product should receive regular monitoring of weight.

**Serotonin Syndrome:** The development of a potentially life-threatening serotonin syndrome has been reported with SNRIs and SSRIs, including **Zybiax**, alone but particularly with concomitant use of other serotonergic drugs (including triptans, tricyclic antidepressants, fentanyl, lithium, tramadol, tryptophan, buspirone, amphetamines, and St. John's Wort) and with drugs that impair metabolism of serotonin (in particular, MAOIs, both those intended to treat psychiatric disorders and also others, such as linezolid and intravenous methylene blue). The concomitant use of **Zybiax** with MAOIs intended to treat psychiatric disorders is contraindicated. **Zybiax** should also not be started in a patient who is being treated with MAOIs such as linezolid or intravenous methylene blue.

**Allergic Reactions and Rash:** Anaphylactoid reactions, including bronchospasm, angioedema, and urticaria alone and in combination, have been reported. Pulmonary reactions, including inflammatory processes of varying histopathology and/or fibrosis, have been reported rarely. These reactions have occurred with dyspnea as the only preceding symptom. Whether these systemic reactions and rash have a common underlying cause or are due to different etiologies or pathogenic processes is not known. Upon the appearance of rash or of other possible allergic phenomena for which an alternative etiology cannot be identified, **Zybiax** should be discontinued.

**Activation of Mania/Hypomania:** A major depressive episode may be the initial presentation of Bipolar Disorder. It is generally believed (though not established in controlled trials) that treating such an episode with an antidepressant alone may increase the likelihood of precipitation of a manic episode in patients at risk for Bipolar Disorder.

**Tardive Dyskinesia:** A syndrome of potentially irreversible, involuntary, dyskinetic movements may develop in patients treated with antipsychotic drugs. Although the prevalence of the syndrome appears to be highest among the elderly, especially elderly women, it is impossible to rely upon prevalence estimates to predict, at the inception of antipsychotic treatment, which patients are likely to develop the syndrome. Whether antipsychotic drug products differ in their potential to cause tardive dyskinesia is unknown. The risk of developing tardive dyskinesia and the likelihood that it will become irreversible are believed to increase as the duration of treatment and the total cumulative dose of antipsychotic drugs administered to the patient increase.

**Orthostatic Hypotension:** **Zybiax** may induce orthostatic hypotension associated with dizziness, tachycardia, bradycardia and, in some patients, syncope, especially during the initial dose-titration period.

**Falls:** **Zybiax** may cause somnolence, postural hypotension, motor and sensory instability, which may lead to falls and, consequently, fractures or other injuries. For patients with diseases, conditions, or medications that could exacerbate these effects, complete fall risk assessments when initiating antipsychotic treatment and recurrently for patients on long-term antipsychotic therapy.

**Leukopenia, Neutropenia, and Agranulocytosis:** Possible risk factors for leukopenia/neutropenia include preexisting low white blood cell count (WBC) and history of drug induced leukopenia/neutropenia. Patients with a history of a clinically significant low WBC or drug induced leukopenia/neutropenia should have their complete blood count (CBC) monitored frequently during the first few months of therapy and discontinuation of **Zybiax** should be considered at the first sign of a clinically significant decline in WBC in the absence of other causative factors. Patients with clinically significant neutropenia should be carefully monitored for fever or other symptoms or signs of infection and treated promptly if such symptoms or signs occur. Patients with severe neutropenia (absolute neutrophil count <1000/mm) should discontinue **Zybiax** and have their WBC followed until recovery.

**Dysphagia:** Esophageal dysmotility and aspiration have been associated with antipsychotic drug use. Aspiration pneumonia is a common cause of morbidity and mortality in patients with advanced Alzheimer's disease. **Zybiax** is not approved for the treatment of patients with Alzheimer's disease.

**Seizures:** Seizures have also been reported with both olanzapine and fluoxetine monotherapy. **Zybiax** should be used cautiously in patients with a history of seizures or with conditions that potentially lower the seizure threshold, e.g., Alzheimer's dementia.

**Zybiax** is not approved for the treatment of patients with Alzheimer's disease. Conditions that lower the seizure threshold may be more prevalent in a population of 65 years of age.

**Abnormal Bleeding:** SNRIs and SSRIs, including fluoxetine, may increase the risk of bleeding reactions. Concomitant use of aspirin, nonsteroidal anti-inflammatory drugs, warfarin, and other anti-coagulants may add to this risk.

Bleeding reactions related to SNRIs and SSRIs use have ranged from ecchymoses, hematomas, epistaxis, and petechiae to life-threatening hemorrhages. Patients should be cautioned about the risk of bleeding associated with the concomitant use of **Zybiax** and NSAIDs, aspirin, or other drugs that affect coagulation.

**Hyponatremia:** Hyponatremia has been reported during treatment with SNRIs and SSRIs, including fluoxetine and this product. In many cases, this hyponatremia appears to be the result of the syndrome of inappropriate antidiuretic hormone secretion (SIADH).

**Potential for Cognitive and Motor Impairment:** **Zybiax** has the potential to impair judgment, thinking, or motor skills. Patients should be cautioned about operating hazardous machinery, including automobiles, until they are reasonably certain that **Zybiax** therapy does not affect them adversely.

**Body Temperature Dysregulation:** Disruption of the body's ability to reduce core body temperature has been attributed to antipsychotic drugs. Appropriate care is advised when prescribing **Zybiax** for patients who will be experiencing conditions which may contribute to an elevation in core body temperature (e.g., exercising strenuously, exposure to extreme heat, receiving concomitant medication with anticholinergic activity, or being subject to dehydration).

**QT Prolongation:** Post-marketing cases of QT interval prolongation and ventricular arrhythmia including Torsade de Pointes have been reported in patients treated with fluoxetine. **Zybiax** should be used with caution in patients with congenital long QT syndrome; a previous history of QT prolongation; a family history of long QT syndrome or sudden cardiac death; and other conditions that predispose to QT prolongation and ventricular arrhythmia. Such conditions include concomitant use of drugs that prolong the QT interval; hypokalemia or hypomagnesemia; recent myocardial infarction, uncompensated heart failure, bradyarrhythmias and other significant arrhythmias; and conditions that predispose to increased fluoxetine exposure (overdose, hepatic impairment, use of CYP2D6 inhibitors, CYP2D6 poor metabolizer status, or use of other highly protein-bound drugs).

Pimozide and thioridazine are contraindicated for use with **Zybiax**. Avoid the concomitant use of drugs known to prolong the QT interval. These include specific antipsychotics (e.g., ziprasidone, iloperidone, chlorpromazine, mesoridazine, droperidol); specific antibiotics (e.g., erythromycin, gatifloxacin, moxifloxacin, sparfloxacin); Class 1A antiarrhythmic medications (e.g., quinidine, procainamide); Class III antiarrhythmics (e.g., amiodarone, sotalol); and others (e.g., pentamidine, levomethadyl acetate, methadone, halofantrine, mefloquine, dolasetron mesylate, probucol or tacrolimus).

Consider ECG assessment and periodic ECG monitoring if initiating treatment with **Zybiax** in patients with risk factors for QT prolongation and ventricular arrhythmia. Consider discontinuing **Zybiax** and obtaining a cardiac evaluation if patients develop signs or symptoms consistent with ventricular arrhythmia.

**Concomitant Use of Olanzapine and Fluoxetine Products:** **Zybiax** contains the same active ingredients that are in Zyprexa®, Zyprexa® Zydys®, Zyprexa® Relprevv™ (olanzapine), and in Prozac®, Prozac® Weekly™, and Sarafem® (fluoxetine HCl). Caution should be exercised when prescribing these medications concomitantly with **Zybiax**.

**Long Elimination Half-Life of Fluoxetine:** Because of the long elimination half-lives of fluoxetine and its major active metabolite, changes in dose will not be fully reflected in plasma for several weeks, affecting both strategies for titration to final dose and withdrawal from treatment. This is of potential consequence when drug discontinuation is required or when drugs are prescribed that might interact with fluoxetine and norfluoxetine following the discontinuation of fluoxetine.

**Discontinuation Adverse Reactions:** During marketing of fluoxetine, a component of **Zybiax**, SNRIs, and SSRIs, there have been spontaneous reports of adverse reactions occurring upon discontinuation of these drugs, particularly when abrupt, including the following: dysphoric mood, irritability, agitation, dizziness, sensory disturbances (e.g., paresthesias such as electric shock sensations), anxiety, confusion, headache, lethargy, emotional lability, insomnia, and hypomania. While these reactions are generally self-limiting, there have been reports of serious discontinuation symptoms.

A gradual reduction in the dose rather than abrupt cessation is recommended whenever possible. If intolerable symptoms occur following a decrease in the dose or upon discontinuation of treatment, then resuming the previously prescribed dose may be considered.

**ADVERSE REACTIONS:** Suicidal Thoughts and Behaviors in Children, Adolescents, and Young Adults, increased Mortality in Elderly Patients with Dementia-Related Psychosis, Neuroleptic Malignant syndrome (NMS), Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS), Hyperglycemia, Dyslipidemia, Weight Gain, Serotonin Syndrome, Angle-Closure Glaucoma, Allergic Reactions and Rash, Tardive Dyskinesia, Orthostatic Hypotension, Falls, Leukopenia, Neutropenia, Agranulocytosis, Dysphagia, Seizures, Abnormal Bleeding, Hyponatremia, Body Temperature Dysregulation, QT Prolongation and Hyperprolactinemia.

**DRUG INTERACTIONS:**

• Monoamine Oxidase Inhibitors (MAOIs).

• CNS Acting Drugs: Caution is advised if the concomitant administration of **Zybiax** and other CNS-active drugs is required.

• Serotonergic Drugs.

• Drugs that Interfere with Hemostasis (e.g., NSAIDs, Aspirin, Warfarin).

• Electroconvulsive Therapy (ECT): There have been rare reports of prolonged seizures in patients on fluoxetine receiving ECT treatment.

**Potential for Other Drugs to Affect Zybiax:**

• Benzodiazepines: Co-administration of diazepam with olanzapine potentiated the orthostatic hypotension observed with olanzapine.

• Inducers of CYP1A2 : Carbamazepine therapy (200 mg BID) causes an approximate 50% increase in the clearance of olanzapine. This increase is likely due to the fact that carbamazepine is a potent inducer of CYP1A2 activity. Higher daily doses of carbamazepine may cause an even greater increase in olanzapine clearance.

• Inhibitors of CYP1A2: Fluvoxamine decreases the clearance of olanzapine.

**Potential for Zybiax to Affect Other Drugs:**

• Carbamazepine: Patients on stable doses of carbamazepine have developed elevated plasma anticonvulsant concentrations and clinical anticonvulsant toxicity following initiation of concomitant fluoxetine treatment.

• Alcohol: The co-administration of ethanol with **Zybiax** may potentiate sedation and orthostatic hypotension.

• Tricyclic Antidepressants (TCAs): the dose of TCA may need to be reduced when **Zybiax** is co-administered.

• Antihypertensive Agents: **Zybiax** may enhance the effects of certain antihypertensive agents.

• Levodopa and Dopamine Agonists: **Zybiax** may antagonize the effects of levodopa and dopamine agonists.

• Benzodiazepines, Haloperidol, Lithium, Phenytoin and Clozapine: Elevation of blood levels of these drugs has been observed in patients receiving concomitant fluoxetine.

• Drugs Metabolized by CYP2D6: Co-administration of fluoxetine with these drugs should be approached with caution.

**Pregnancy:** Pregnancy Category C

There are no adequate and well-controlled clinical studies with **Zybiax** in pregnant women. **Zybiax** should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Lactation:** It is recommended that women not breast-feed when receiving **Zybiax**.

**DOSAGE AND ADMINISTRATION:**

**Depressive Episodes Associated with Bipolar Disorder:**

- **Adults:** Administer **Zybiax** once daily in the evening, generally beginning with **Zybiax 6/25 mg** capsule. Antidepressant efficacy was demonstrated with **Zybiax** in a dose range of olanzapine 6 mg to 12 mg and fluoxetine 25 mg to 50 mg.

- **Children and Adolescents (10 to 17 years of age):** Administer **Zybiax** once daily in the evening, generally beginning with **Zybiax 3 /25 mg** capsule.

**Treatment Resistant Depression:** Administer **Zybiax** once daily in the evening, generally beginning with **Zybiax 6 /25 mg** capsule.

**Specific Populations:** Start **Zybiax 3 /25 mg** or **Zybiax 6 /25 mg** in patients with a predisposition to hypotensive reactions, patients with hepatic impairment, or patients who exhibit a combination of factors that may slow drug metabolism.

**Treatment of Pregnant Women:** When treating pregnant women with fluoxetine, a component of **Zybiax**, the physician should carefully consider the potential risks and potential benefits of treatment. Neonates exposed to SSRIs or SNRIs late in the third trimester have developed complications requiring prolonged hospitalizations, respiratory support, and tube feeding.

**Overdosage:** Adverse reactions result from **Zybiax** overdosage included: somnolence (sedation), impaired consciousness (coma), impaired neurologic function (ataxia, confusion, convulsions, dysarthria), arrhythmias, lethargy, agitation, acute psychosis, hypotension, hypertension, and aggression.

In case of acute overdose, establish and maintain an airway and ensure adequate ventilation, which may include intubation. Commence cardiovascular monitoring immediately and include continuous electrocardiographic monitoring to detect possible arrhythmias.

**Storage conditions:** store at room temperature, below 25° C, away from light and moisture.

**Packaging:** (2) blisters, each one contains 10 capsules/ carton box.

<b>TPP1900000 THIS IS A MEDICAMENT</b>
- A medicament is a product but unlike any other products.
- A medicament is a product which affects your health, and its consumption contrary to instructions is dangerous for you.
- Follow strictly the doctor's prescription, the method of use and the instructions of the pharmacist who sold the medicament. The doctor and the pharmacist are experts in medicine, its benefits and risks.
- Do not by yourself interrupt the period of treatment prescribed for you.
- Do not repeat the same prescription without consulting your doctor.
<b>KEEP MEDICAMENTS OUT OF REACH OF CHILDREN</b> (Council of Arab Health Ministers) (Arab Pharmacists Association)

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