zafirlukast (za-feer-loo-kast)

Classification
Therapeutic: antiasthmatics, bronchodilators
Pharmacologic: leukotriene antagonists

Pregnancy Category B

Indications
Long-term control agent in the management of asthma.

Action
Antagonizes the effects of leukotrienes, which are components of slow-reacting substance of anaphylaxis (SRS-A). These substances mediate the following: Airway edema, Smooth muscle constriction, Altered cellular activity. Result is decreased inflammatory process that is part of asthma. Therapeutic Effects: Decreased frequency and severity of asthma.

Pharmacokinetics
Absorption: Rapidly absorbed after oral administration. Distribution: Enters breast milk. Protein Binding: 99%. Metabolism and Excretion: Mostly metabolized by the liver; 10% excreted unchanged by the kidneys. Half-life: 10 hr.

TIME/ACTION PROFILE (improved symptoms of asthma)

<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>1 wk</td>
<td>unknown</td>
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Contraindications/Precautions
Contraindicated in: Hypersensitivity; Hepatic impairment; Lactation.: Lactation.
Use Cautiously in: Acute attacks of asthma; Patients <55 yr (risk of infection); Geri: May need lower doses to avoid side effects. OB, Pedi: Pregnancy or children <7 yr (safety not established).

Adverse Reactions/Side Effects
CNS: SUICIDAL THOUGHTS, agitation, aggression, anxiety, depression, dizziness, dreams abnormal.
CV: Q-T prolongation, tachycardia.
GI: Diarrhea, abdominal pain, constipation, diarrhea, nausea, vomiting, weight loss.
GU: Urinary frequency.
Hematologic: Anemia.
Musculoskeletal: Back pain, myalgia.
Other: CHURG-STRAUSS SYNDROME, fever, infection (urticaria, pneumonia), pain.

Interactions
Drug-Drug: Levels are q by aspirin. Levels are p by erythromycin and theophylline.
Drug-Food: Food (especially high-fat or high-protein meal) p absorption.

Route/Dosage
PO (Adults and Children ≥12 yr): 20 mg twice daily.
PO (Children 7–11 yr): 10 mg twice daily.

NURSING IMPLICATIONS
Assessment
● Assess lung sounds and respiratory function before and periodically during therapy.
● Monitor closely for changes in behavior that could indicate the emergence or worsening of depression or suicidal thoughts.
● Lab Test Considerations: Monitor liver function periodically during therapy. May cause ALT concentrations. If liver dysfunction occurs, zafirlukast should be discontinued.

Potential Nursing Diagnoses
Ineffective airway clearance (Indications)
Deficient knowledge, related to medication regimen (Patient/Family Teaching)

Implementation
● PO: Administer at regular intervals on an empty stomach, 1 hr before or 2 hr after meals.

Patient/Family Teaching
● Instruct patient to take medication on an empty stomach, as directed, at evenly spaced intervals, even if not experiencing symptoms of asthma. Take missed doses as soon as remembered unless almost time for next dose. Do not double doses. Do not discontinue therapy without consulting health care professional.
Instruct patient not to discontinue or reduce other asthma medications without consulting health care professional.

Advise patient that zafirlukast is not used to treat acute asthma attacks but may be continued during an acute exacerbation.

Advise patient, family, and caregivers to look for suicidality, especially during early therapy or dose changes. Notify health care professional immediately if thoughts about suicide or dying, attempts to commit suicide, new or worse depression or anxiety, agitation or restlessness, panic attacks, insomnia, new or worse irritability, aggressiveness, acting on dangerous impulses, mania, or other changes in mood or behavior occur.

Advise patient to notify health care professional if symptoms of Churg-Strauss syndrome (generalized flu-like syndrome; fever, nose or sinus pain, and rash, weight loss, worsening respiratory symptoms) occur. Occurs rarely but may be life-threatening. More likely to occur when weaning from systemic corticosteroids.

**Evaluation/Desired Outcomes**

- Prevention of and reduction in symptoms of asthma

**Why was this drug prescribed for your patient?**