arformoterol (al-fer-moe-tor-eal)

**Classification**
Therapeutic: bronchodilators
Pharmacologic: adrenergics

**Pregnancy Category C**

**Indications**
Maintenance treatment to prevent bronchospasm in chronic obstructive pulmonary disease (COPD) including chronic bronchitis and emphysema.

**Action**
Produces accumulation of cyclic adenosine monophosphate (cAMP) at beta-adrenergic receptors, resulting in relaxation of airway smooth muscle. Relatively specific for beta2 (pulmonary) receptors. Therapeutic Effects: bronchodilation.

**Pharmacokinetics**

Absorption: Some systemic absorption occurs from pulmonary sites.

Distribution: Unknown.

Metabolism and Excretion: Mostly metabolized by the liver; 1% excreted unchanged in urine.

Half-life: 26 hr.

**TIME/ACTION PROFILE**

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhaln</td>
<td>unknown</td>
<td>30 min</td>
<td>12 hr</td>
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</tbody>
</table>

**Contraindications/Precautions**
Contraindicated in: Hypersensitivity; Acutely deteriorating COPD (onset of action is delayed); Pediatric; Safety not established; Concurrent use of other long-acting beta2 agonists.

Use Cautiously in:
Cardiovascular disorders including coronary insufficiency, arrhythmias and hypertension; Hepatic impairment; Geri: May be more sensitive to drug effects; OB, Lactation: Safety not established; use only when maternal benefit outweighs fetal risk; may inhibit contractions during labor.

**Adverse Reactions/Side Effects**


**Interactions**

Drug-Drug: Concurrent use with MAO inhibitors, tricyclic antidepressants or other agents that may prolong the QTc interval may result in ventricular arrhythmias and should be undertaken with extreme caution. ↑ risk of hypokalemia with theophylline, corticosteroids, potassium-losing diuretics. Beta blockers may ↓ therapeutic effects. ↑ adrenergic effects may occur with concurrent use of adrenergics.

**Route/Dosage**

**Inhaln** (Adults): 15 mcg twice daily via nebulization.

**NURSING IMPLICATIONS**

**Assessment**
- Assess lung sounds, pulse, and BP before administration and periodically during therapy.
- Monitor pulmonary function tests before initiating therapy and periodically during therapy to determine effectiveness of medication.
- Observe for paradoxical bronchospasm (wheezing, dyspnea, tightness in chest) and hypersensitivity reactions (rash, urticaria, swelling of the face, lips, or eyelids). If condition occurs, withhold medication and notify physician or other health care professional immediately.

**Potential Nursing Diagnoses**
- Ineffective airway clearance (Indications)

**Implementation**
- Inhaln: Administration twice daily, approximately 12 hrs apart. Solution is colorless; discontinue if discolored. Do not administer beyond expiration date. Do not mix with other drugs in nebulizer. Administer by inhalation only; do not inject or swallow medication.

**Patient/Family Teaching**
- Instruct patient on proper technique use and advise patient to take arformoterol as directed. Do not use more than the prescribed dose. If a regularly scheduled
If symptoms occur before next dose is due, use a rapid-acting inhaled bronchodilator (e.g., albuterol).

Inform patient that arformoterol may increase the risk of asthma-related death.

Advise patients who have been taking short-acting beta agonists regularly to discontinue regular use and use only for symptomatic relief of acute respiratory symptoms.

Caution patients not to use arformoterol to treat acute symptoms. A rapid-acting inhaled beta adrenergic bronchodilator should be kept on hand and used for relief of acute asthma attacks.

Advise patient to notify health care professional immediately if difficulty in breathing persists after use of arformoterol, if condition worsens, if more inhalations of rapid-acting bronchodilator than usual are needed to relieve an acute attack.

Advise female patients to notify health care professional if pregnancy is planned or suspected or if breast feeding.

**Evaluation/Desired Outcomes**

- Decreased dyspnea.
- Improved breath sounds.

Why was this drug prescribed for your patient?