Indacaterol (in-da-kat-e-role)
Arcapta Neohaler, Onbrez Breezhaler

Classification
Therapeutic: bronchodilator, COPD agents
Pharmacologic: adrenergics

Pregnancy Category C

Indications
Long-term maintenance treatment of airflow obstruction associated with chronic obstructive pulmonary disease (COPD).

Action
Produces accumulation of cyclic adenosine monophosphate (cAMP) at beta2-adrenergic receptors. Relatively specific for pulmonary receptors. Acts as a long-acting beta-agonist (LABA).

Therapeutic Effects:
Bronchodilation, with improvement in symptoms of COPD.

Pharmacokinetics
Absorption: Some systemic absorption from lungs and GI tract (43–45%).
Distribution: Extensively distributed.
Metabolism and Excretion: 54% excreted unchanged in feces; absorbed drug is mostly metabolized; 23% excreted in feces as metabolites.
Half-life: 45.5–126 hr.

TIME/ACTION PROFILE (blood levels)
ROUTE ONSET PEAK DURATION
Inhaln unknown 15 min 24 hr†
† Bronchodilation.

Contraindications/Precautions
Contraindicated in: Hypersensitivity; Acutely deteriorating COPD or acute respiratory symptoms; Asthma.
Use Cautiously in: OB: Use during pregnancy only if potential benefit justifies potential fetal risks; may interfere with uterine contractility during labor; Pedi: Safety and effectiveness not established.

Adverse Reactions/Side Effects
CNS: headache.
EENT: nasopharyngitis, oropharyngeal pain.
Resp: PARADOXICAL BRONCHOSPASM, cough.
GI: nausea.
Misc: ALLERGIC REACTIONS.

Interactions
Drug-Drug: Risk of serious adverse cardiovascular effects with MAO inhibitors, tricyclic antidepressants or drugs that prolong the QTc interval; use with extreme caution. Effectiveness may be lost by beta-blockers; use cautiously and only when necessary. Concurrent use with other adrenergics may ↑ adrenergic adverse reactions (↑ heart rate, BP, tremor). ↑ risk of hypokalemia or ECG changes with xanthine derivatives, corticosteroids, diuretics, or non-potassium sparing diuretics.

Drug-Natural Products: Use with caffeine-containing herbs (cola nut, guarana, mate, tea, coffee) ↑ stimulant effect.

Route/Dosage
Inhaln (Adults): 75 mcg once daily.

NURSING IMPLICATIONS
Assessment
● Assess respiratory status (rate, breath sounds, degree of dyspnea, pulse) before administration and at peak of medication. Consult health care professional about alternative medication if severe bronchospasm is present; onset of action is too slow for patients in acute distress. If paradoxical bronchospasm (wheezing) occurs, withhold medication and notify health care professional immediately.

● Monitor for signs and symptoms of allergic reactions (Difficulty in breathing or swallowing, swelling of tongue, lips and face, urticaria, skin rash). Discontinue therapy if symptoms occur.

● Lab Test Considerations: ↑ cause transient hyperkalemia and hyperuricemia.

Potential Nursing Diagnoses
Ineffective airway clearance (Indications)
Risk for activity intolerance (Indications)

Exercise Extreme Caution in: Concurrent use of MAO inhibitors, tricyclic antidepressants or drugs that prolong the QTc interval; ↑ risk of adverse cardiovascular reactions.

NURSING IMPRESSIONS
Implementation

- **Inhaler:** Pull cap off Neohaler. Open inhaler by holding the base and tilting the mouthpiece. Your preparation is separate one blister from blister card; peel away protective back to expose foil. With dry hands, push capsule through foil to remove. Insert capsule into capsule chamber; do not swallow capsule or place directly into mouthpiece. Close inhaler until it clicks. Press both buttons fully 1 time; click is heard as capsule is pierced, do not press piercing buttons more than 1 time. Release button fully. Breathe out, do not blow into mouthpiece. Close lips around mouthpiece; hold inhaler with buttons left and right (not up and down). Breathe in rapidly and steadily, as deep as possible, a whirring noise is heard. Continue to hold breath as long as possible while removing inhaler from mouth. Open inhaler, if powder remains in capsule, close inhaler and inhale again. Usually requires 1–2 breaths. Remove capsule.

Patient/Family Teaching

- Instruct patient in the correct use of capsules and Neohaler. Advise patient not to discontinue without consulting health care professional; symptoms may recur.
- Instruct patient that indicators to use are bronchodilator and should not be used for treating sudden symptoms.
- Advise patient to notify health care professional if signs and symptoms of allergic reaction, worsening symptoms, decreasing effectiveness of inhaled short-acting beta agonists, or significant decrease in lung function occur.
- Instruct patient to notify health care professional if pregnancy is planned or suspected or if breast feeding.

Evaluation/Desired Outcomes

- Decrease in the number of flare-ups or the worsening of COPD symptoms (exacerbations).

Why was this drug prescribed for your patient?