beclomethasone (be-kloe-**meth**-a-sone)

Qvar

Classification

Therapeutic: anti-inflammatories (steroidal)
Pharmacologic: corticosteroids

Pregnancy Category C

Indications

Maintenance treatment of asthma as prophylactic therapy. May decrease requirement for or eliminate use of systemic corticosteroids in patients with asthma.

Action

Potent, locally acting anti-inflammatory and immune modifier. **Therapeutic Effects:** Decreases frequency and severity of asthma attacks. Improves asthma symptoms.

Pharmacokinetics

Absorption: 20%. Action is primarily local following inhalation.
Distribution: Crosses the placenta and enters breast milk in small amounts.
Metabolism and Excretion: Following inhalation, beclomethasone dipropionate is primarily converted to beclomethasone 17–monopropionate (active metabolite); primarily excreted in feces (<10% excreted in urine).
Half-life: 2.8 hr.

TIME/ACTION PROFILE (improvement in symptoms)

ROUTE	ONSET	PEAK	DURATION
Inhalation	within 24 hr	1–4 wk*	unknown

*Improvement in pulmonary function; decreased airway responsiveness may take longer

Contraindications/Precautions

Contraindicated in: Hypersensitivity (product contains alcohol); Acute attack of asthma/status asthmaticus.
Use Cautiously in: Active untreated infections; Diabetes or glaucoma; Underlying immunosuppression (due to disease or concurrent therapy); Systemic corticosteroid therapy (should not be abruptly discontinued when inhalable therapy is started; additional corticosteroids needed in stress or trauma); ***OB, Lactation:*** Safety not established; ***Pedi:*** Safety not established in children <5 yr; prolonged or high-dose therapy may lead to complications.

Adverse Reactions/Side Effects

CNS: headache. **EENT:** cataracts, dysphonia, oropharyngeal fungal infections, pharyngitis, rhinitis, sinusitis. **Resp:** bronchospasm, cough, wheezing. **Endo:** adrenal suppression (increased dose, long-term therapy only), decreased growth (children). **MS:** back pain.

Interactions

Drug-Drug: None known.

Route/Dosage

Inhaln (Adults and Children ≥12 yr): *Previously on bronchodilators alone*— 40–80 mcg twice daily (not to exceed 320 mcg twice daily). *Previously on inhaled corticosteroids*— 40–160 mcg twice daily (not to exceed 320 mcg twice daily).
Inhaln (Children 5–11 yr): *Previously on bronchodilators alone*— 40 mcg twice daily (not to exceed 80 mcg twice daily). *Previously on inhaled corticosteroids*— 40 mcg twice daily (not to exceed 80 mcg twice daily).

NURSING IMPLICATIONS

Assessment

- Monitor respiratory status and lung sounds. Pulmonary function tests may be assessed periodically during and for several months following a transfer from systemic to inhalation corticosteroids.
- Assess patients changing from systemic corticosteroids to inhalation corticosteroids for signs of adrenal insufficiency (anorexia, nausea, weakness, fatigue, hypotension, hypoglycemia) during initial therapy and periods of stress. If these signs appear, notify physician or other health care professional immediately; condition may be life-threatening.
- Monitor for withdrawal symptoms (joint or muscular pain, lassitude, depression) during withdrawal from oral corticosteroids.
- Monitor growth rate in children receiving chronic therapy; use lowest possible dose.
- ***Lab Test Considerations:*** Periodic adrenal function tests may be ordered to assess degree of hypothalamic-pituitary-adrenal (HPA) axis suppression in

chronic therapy. Children and patients using higher than recommended doses are at greatest risk for HPA suppression.
- May cause increased serum and urine glucose concentrations if significant absorption occurs.

Potential Nursing Diagnoses

Ineffective airway clearance (Indications)
Risk for infection (Side Effects)
Deficient knowledge, related to medication regimen (Patient/Family Teaching)

Implementation

- After the desired clinical effect has been obtained, attempts should be made to decrease dose to lowest amount required to control symptoms. Gradually decrease dose every 2–4 wk as long as desired effect is maintained. If symptoms return, dose may briefly return to starting dose.
- **Inhaln:** Allow at least 1 min between inhalations of aerosol medication.

Patient/Family Teaching

- Advise patient to take medication exactly as directed. If a dose is missed, take as soon as remembered unless almost time for next dose. Advise patient not to discontinue medication without consulting health care professional; gradual decrease is required.
- Advise patients using inhalation corticosteroids and bronchodilator to use bronchodilator first and to allow 5 min to elapse before administering the corticosteroid, unless otherwise directed by health care professional.
- Advise patient that inhalation corticosteroids should not be used to treat an acute asthma attack but should be continued even if other inhalation agents are used.
- Patients using inhalation corticosteroids to control asthma may require systemic corticosteroids for acute attacks. Advise patient to use regular peak flow monitoring to determine respiratory status.
- Caution patient to avoid smoking, known allergens, and other respiratory irritants.
- Advise patient to notify physician if sore throat or mouth occurs.
- Instruct patient whose systemic corticosteroids have recently been reduced or withdrawn to carry a warning card indicating the need for supplemental systemic corticosteroids in the event of stress or severe asthma attack unresponsive to bronchodilators.
- **Metered-Dose Inhaler:** Instruct patient in the proper use of the metered-dose inhaler. Canister must be primed prior to first use. Do this by releasing 2 actuations into air away from face. Canister will remain primed for 10 days. If not used for more than 10 days, reprime with 2 actuations. Shake inhaler well. Exhale completely and then close lips firmly around mouthpiece. While breathing in deeply and slowly, press down on canister. Hold breath for as long as possible to ensure deep instillation of medication. Remover inhaler from mouth and breathe out gently. Allow 1–2 min between inhalations. Rinse mouth with water or mouthwash after each use to minimize fungal infections, dry mouth, and hoarseness. Clean only the mouthpiece weekly with clean dry tissue or cloth. Do not place in water.

Evaluation/Desired Outcomes

- Management of the symptoms of chronic asthma.
- Improvement in asthma symptoms.

Why was this drug prescribed for your patient?