

cromolyn (kroe-moe-lin)

✳ Apo-Cromolyn, Gastrocrom, NasalCrom

Classification

Therapeutic: antiasthmatics, allergy, cold, and cough remedies

Pharmacologic: mast cell stabilizers

Pregnancy Category B

Indications

Inhaln: Prophylaxis (long-term control) of bronchial asthma. Prevention of exercise-induced bronchospasm. **Intranasal:** Prevention and treatment of seasonal and perennial allergic rhinitis. **PO:** Mastocytosis. Treatment of food allergy. Treatment of inflammatory bowel disease (IBD).

Action

Prevents the release of histamine and slow-reacting substance of anaphylaxis (SRS-A) from sensitized mast cells. **Therapeutic Effects:** Decreased frequency and intensity of asthmatic episodes or allergic reactions.

Pharmacokinetics

Absorption: Oral: 0.5—2%; Inhalation: Poorly absorbed systemically (total bioavailability is 8%); action is local. Small amounts may reach systemic circulation after inhalation.

Distribution: Because only small amounts are absorbed, distribution is not known.

Metabolism and Excretion: Small amounts absorbed are excreted unchanged in bile and urine.

Half-life: 80–90 min.

TIME/ACTION PROFILE

| ROUTE | ONSET | PEAK | DURATION |
|---------------------|--------|--------|----------|
| Cromolyn-inhalation | 1–2 wk | 2–4 wk | unknown |
| Cromolyn-nasal | 1–2 wk | 2–4 wk | unknown |

Contraindications/Precautions

Contraindicated in: Hypersensitivity; Acute attacks of asthma (inhalation).

Use Cautiously in: Renal or hepatic dysfunction; Bronchospasm—Will not relieve and may worsen acute attacks (inhalation); **OB, Lactation:** Safety not established; **Pedi:** Safety not established in children <2 yr.

✳ = Canadian drug name.

⊠ = Genetic Implication.

CAPITALS indicate life-threatening, underscores indicate most frequent.

~~Strikethrough~~ = Discontinued.

Adverse Reactions/Side Effects

CNS: dizziness, headache. **Derm:** rash, urticaria, angioedema. **EENT:** intranasal—nasal irritation, nasal congestion, sneezing. **Resp:** inhalation—irritation of the throat and trachea, cough, wheezing, bronchospasm. **GI:** nausea, unpleasant taste. **Misc:** allergic reactions including ANAPHYLAXIS or worsening of conditions being treated.

Interactions

Drug-Drug: Not known.

Route/Dosage

Inhaln (Adults and Children ≥2 yr): *Nebulized solution:* One ampule (20-mg) of the nebulizer solution 4 times daily. For prevention of bronchospasm, use one nebulized ampule (20 mg) 10–15 min before exposure to known precipitating situation.

Intranasal (Adults and Children ≥2 yr): 1 spray (5.2 mg/spray) into each nostril 3–4 times daily (up to 6 times daily).

PO (Adults and Children > 12 yr): 200 mg 4 times a day.

PO (Children 2–12 yr): 100 mg 4 times a day; not to exceed 40 mg/kg/day.

NURSING IMPLICATIONS

Assessment

- **Inhaln:** Evaluate pulmonary function testing before initiating therapy in asthmatics.
- Assess lung sounds and respiratory function before and periodically during therapy.
- **Intranasal:** Assess for symptoms of rhinitis (stiffness, rhinorrhea).

Potential Nursing Diagnoses

Ineffective airway clearance (Indications)

Implementation

- Reduction in dose of other asthma medications may be possible after 2–4 wk of therapy.
- **PO:** Break open and squeeze contents of ampule into a glass of water. Stir solution. Drink all of liquid. Administer 30 min before meals and at bedtime.
- **Inhaln:** Medication should be used prophylactically, not during acute asthma attacks or status asthmaticus.

- Pretreatment with bronchodilator may be required to increase delivery of inhalation product.
- Do not use nebulizer solution that is cloudy or contains a precipitate. Compatible with acetylcysteine, epinephrine, isoetharine, isoproterenol, metaproterenol, and terbutaline solutions for up to 60 min.

Patient/Family Teaching

- Instruct patient on correct use of medication. Medication must be used routinely and not more frequently than prescribed. Take missed doses as soon as remembered and space other doses at regular intervals. Do not double doses. Do not discontinue therapy without consulting health care professional, or exacerbation of symptoms may occur.
- Instruct patient not to discontinue concurrent corticosteroid or bronchodilator therapy without consulting health care professional.
- If cromolyn is prescribed before contact with known allergen or exercise, explain that it should be administered 10–15 min, and no earlier than 60 min, in advance.
- **Inhaln:** Caution patient to notify health care professional if asthmatic symptoms do not improve within 4 wk, worsen, or recur.
- **Intranasal:** Instruct patient to clear nasal passages before administration and to inhale through nose during administration.
- Instruct patient to start using product up to 1 wk before coming into contact with allergen and to use every day while in contact with allergen.

Evaluation/Desired Outcomes

- Therapeutic effects, observable within 2–4 wk after beginning therapy, are demonstrated by:
- Reduction in symptoms of asthma.
- Prevention of exercise-induced bronchospasm.
- Decrease in the symptoms of allergic rhinitis.

Why was this drug prescribed for your patient?