

Indication and Mechanism of Action¹⁻⁵

Montelukast is an oral medication used to treat asthma, seasonal or perennial allergic rhinitis, and exercise-induced bronchoconstriction. Montelukast is a leukotriene receptor antagonist. Leukotrienes are found in airway cells and involved with the inflammatory process of asthma and allergic rhinitis. Montelukast inhibits these physiological effects and improves clinical symptoms.

- For allergic rhinitis, current guidelines recommend against using montelukast as a first-line therapy (except in patients with concurrent asthma).
- Montelukast can be used as an add-on therapy in patients with asthma and concomitant allergic rhinitis.
- For the treatment of asthma, guidelines recommend montelukast be reserved for patients who are not maintained (fail to achieve good control of asthma) and/or cannot take inhaled corticosteroids.

Adult Dosing¹

Indication	Dose*
Asthma maintenance treatment	10 mg PO once daily in the evening
Perennial allergic rhinitis	10 mg PO once daily

*Dose does not need to be adjusted for renal impairment or mild to moderate hepatic impairment.

Clinical Considerations^{1,2,6}

Side Effects:

- Dyspepsia
- Dizziness
- Muscle weakness
- Anaphylaxis
- Angioedema

Boxed Warning: Post marketing reports and studies have resulted in a boxed warning for neuropsychiatric events, which include anxiety, disorientation, agitation, aggression, depression, suicidal thoughts and behavior (including suicide), and sleep disturbances. These neuropsychiatric events have been reported in adults, adolescents, and pediatric patients. Careful consideration should be given as to whether the benefit of montelukast use outweighs the risk of neuropsychiatric events. All patients treated with montelukast should be monitored for neuropsychiatric symptoms.

Off-label Use: There is some evidence to support off-label use of montelukast for urticaria.^{7,8} Montelukast use for urticaria should be reserved for patients who are unable to get adequate relief after optimal dosing of a non-sedating antihistamine. It should be noted that montelukast does not have an off-label indication for COPD and there is currently a lack of compelling evidence supporting its benefit for COPD treatment.¹⁰

Hospice Implications

Given the overlap between common end of life symptoms and neuropsychiatric adverse events from montelukast, careful consideration should be given to use of this medication in hospice patients. Montelukast use should be reserved for patients who have tried and failed first-line therapies. Ensure that caregivers and patients are aware of the potential adverse effects of montelukast and that the patient is closely monitored.

References

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