

RX

Drug Name: Ranitidine

Trade Name: Zantac

Class:

Antihistamine
H2 Antagonist

Mechanism of Action:

- Blocks H2 receptors
 - ❖ H1—causes bronchoconstriction, contraction of gut
 - ❖ H2—causes peripheral vasodilation, secretion of gastric acid
 - o ERs use cimetidine (Tagamet) for H2 blockade

Indications:

- Anaphylaxis
- Allergic reactions
- Urticaria

Contraindications:

- Hypersensitivity
- Acute asthma attack
- Lower respiratory tract disease/Pneumonia
- Newborns & nursing mothers

Precautions:

- Concurrent use of other H2 inhibitors
- HTN
- Cardiac disease
- Renal disease (prolonged clearance)
- Bronchial asthma
- Seizures
- Pregnancy category - C
- Closed angle glaucoma (avoid if at all possible)

Dosage:

Adults:

50 mg IV/IO/IM (Diluted in Normal Saline)
PO: (If available) 150-300 mg (for mild cases)

Pediatrics:

1 mg/kg IV/IM/IO max dose 50 mg
PO: (If available) 150 mg (for mild cases)

Onset:

IM—20 min
IV—5-10 minutes to reach peak effect.

Duration:

IM—2-6 hours
IV—2-6 hours

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Side Effects:

- Drowsiness
- Dizziness
- Incoordination
- Confusion
- Dry mouth
- Drying of bronchial secretions
- Blurred vision
- Urinary retention
- Hypotension
- Tachycardia
- Bradycardia
- AV Block (rare)

Interactions:

Additive effects—other CNS depressants
MAOIs—prolong the anticholinergic effects

PEARLS:

- ***Ranitidine is an adjunctive therapy to benadryl (with or without epinephrine) in anaphylaxis & severe allergic reactions. It is not a stand-alone intervention.***
- **While the pathology of anaphylaxis is still being understood, some patients will experience prolonged or even multi-phasic reactions. The combination of an H1 and an H2 blocker has been shown in clinical trials to reduce the severity as well as the reoccurrence of anaphylactic symptoms over a significant period.**
- **A common misconception is that the majority of symptoms in anaphylaxis are the result of H1 receptors. In reality, both H1 and H2 receptors are equally important. H2 blockers combined with H1 blockers have additive benefit over H1 blockers alone in treating anaphylaxis in general. H2 receptors are useful in treating vasodilation, possibly some cardiac effects, and glandular hypersecretion.**