

Outrank the Best

# BILAHENZ

Bilastine 20 mg Tablets

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## **INVERSE AGONIST: H1 ANTIHISTAMINE:**

- The biological effects of histamine in the allergic reaction are mediated through H1 receptors that coexist in active and inactive forms of g protein-coupled receptors which balance each other. H1 antihistamines work as inverse agonists that drive the balance toward the inactive side and suppress the effects of histamine.
- Since these effects are not genuine antagonistic but rather represent a balance displacement between active and inactive forms of H1 receptors, now, the term H1 antihistamine rather than the former "antihistamine antagonist" is used

## **PHARMACODYNAMICS:**

- Bilastine is an H1 receptor inverse agonist. In vitro studies have shown that bilastine has a high specific affinity for the H1-receptor but it has no or very low affinity for 30 other tested receptors.
- The affinity for the H1 receptor is 3 and 6 times higher than for cetirizine and fexofenadine, respectively.
- As per ARIA guidelines, one of the key qualities of an ideal oral H1 antihistamine is to have no interaction with CYP 450. However, some oral H1 antihistamines (eg, loratadine, rupatadine) are extensively transformed to active metabolites by the CYP system in the liver. This creates significant potential for drug-drug interactions. Importantly, Bilastine does not interact significantly, either as an inhibitor or as a inducer, with the CYP enzyme system in vitro.

## PHARMACOKINETIC:

• It has a **rapid onset and sustained action**, with an 8 h duration of maximum effect and significant activity for at least 24 h following a single dose.

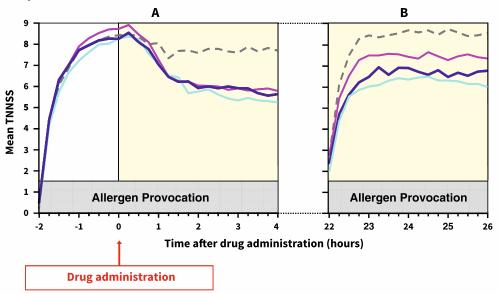
| Generic name                 | Cetirizine | Fexofenadine | Levocetirizine | Loratadine | Bilastine |
|------------------------------|------------|--------------|----------------|------------|-----------|
| Dosage (mg × daily)          | 10×1       | 180×1        | 5×1            | 10×1       | 20× 1     |
| Rapid onset (h)              | 0.5-1      | 1            | 0.5-1          | 0.5-1      | 0.5-1     |
| Maximum effect (h)           | 4-6        | 6            | 4–6            | 4-6        | 1.3-1     |
| Duration of effect (h)       | 24         | 24           | 24             | 24         | >24       |
| Metabolism (%)               | <10        | 0            | <10            | >90        | 0         |
| Interactions                 | No         | Yes          | No             | No         | No        |
| Discontinuation interval (d) | 3          | 3            | 3              | 3          | ND        |



## **CLINICAL EFFICACY**

## The effects of bilastine compared with cetirizine, fexofenadine, and placebo on allergeninduced nasal and ocular symptoms in patients exposed to aeroallergen in the Vienna Challenge Chamber

- Seventy-five allergic volunteers were challenged with grass pollen in the Vienna Challenge Chamber (VCC) on two consecutive days of allergen provocation; 6 h on day 1 and 4 h day 2. Bilastine 20 mg, cetirizine 10 mg, fexofenadine 120 mg, or placebo were taken orally 2 h after the start of provocation on day 1 only. Total nasal symptom scores, the global symptom scores, nasal secretions, and eye symptoms were assessed on both day 1 and day 2.
- Bilastine had a rapid onset of action, within 1 h, and a long duration of action, greater than 26 h. Cetirizine was similar. Fexofenadine was similar on day 1 but less effective on day 2, indicating a shorter duration of action. Bilastine, like cetirizine and fexofenadine, was safe and well tolerated in this study.



The time course of the effects of bilastine 20 mg (dark blue line, n = 74), cetirizine 10 mg (light blue line, n = 68), fexofenadine 120 mg (magenta line, n = 70), and placebo (grey broken line, n = 70) against the allergen-induced increase in total nasal symptom score (TNSS) assessed every 15 min in the Vienna Challenge Chamber.

## Comparative efficacy of bilastine, desloratedine and rupatedine in the suppression of wheal and flare response induced by intradermal histamine in healthy volunteers

- Twenty-four healthy volunteers: Subjects received single doses of bilastine 20 mg, desloratadine 5 mg, rupatadine 10 mg and placebo.
- Bilastine induced the greatest inhibition in wheal area and was significantly superior to desloratedine and rupatadine from 1 to 12 hours (both p<.001). Maximum wheal inhibition occurred at 6 hours (bilastine 83%, desloratedine 38%, rupatadine 37%). Onset of action was 1 hour for bilastine and 4 hours for desloratedine and rupatadine.
- Bilastine was significantly superior to deslorated ine and rupated ine for flare inhibition from 1–24 hours (both p<.001) with an onset of action at 30 minutes. Bilastine was significantly better than deslorated ine (2–12 hours; at least p<.05) and rupated ine (2–9 hours; at least p<.01) for reducing itching sensation.
- Bilastine 20mg induced significantly greater inhibition of the W&F response compared with desloratedine 5mg and rupatedine 10mg throughout the 24 hour study period, and had the fastest onset of action. Only bilastine significantly reduced itching sensation versus placebo.



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## **INTRODUCTION:**

**BILAHENZ** is a tablet of bilastine, a next-generation well-tolerated, nonsedating H1 receptor antihistamine. Bilastine belongs to piperidine derivatives and is not structurally derived from any other currently available antihistamines. It is used to relieve the symptoms of hayfever (sneezing, itchy, runny, blocked-up nose and red and watery eyes) and other forms of allergic rhinitis. It may also be used to treat itchy skin rashes (hives or urticaria).

## **COMPOSITION:**

Each tablet contains 20 mg of bilastine.

### **INDICATION:**

For symptomatic relief of nasal and non-nasal symptoms of Allergic rhinitis in patients 12 years of age and older (seasonal and perennial) and for symptomatic relief in chronic spontaneous urticaria in patients 18 years of age and older.

## **MECHANISM OF ACTION:**

Bilastine is a selective histamine H1 receptor antagonist. During allergic response mast cells undergo degranulation which releases histamine and other subastances. By binding to and preventing activation of the H1 receptor, bilastine reduces the development of allergic symptoms due to the release of histamine from mast cells.

## PHARMACOKINETIC:

In healthy adults, a mean oral systemic availability of bilastine of 61% has been reported. Themaximum plasma concentration (220 ng/mL) of bilastine 20 mg was found 1.3 hours after administration, half time was 14.5 hours, and plasma protein binding was 84–90%. Approximately, 95% is excreted intact in faeces (67%) or in urine (33%)

### **DOSAGE AND ADMINISTRATION:**

- The recommended dose is 20 mg bilastine (1 tablet) once daily for the relief of symptoms of allergic rhinitis and urticaria.
- The tablet should be taken one hour before or two hours after intake of food or fruit juice
- No dosage adjustments are required in elderly patients
- No dosage adjustment is required in patients with renal impairment.

## **PRESENTATION:**

It is available as 10\*10 strip pack.

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