

I: 10.2165/00003088-200847040-00001 Abstract Second-generation histamine H(1) receptor antagonists were developed to provide efficacious treatment of allergic rhinitis (AR) and chronic idiopathic urticaria (CIU) while decreasing adverse effects associated with first-generation agents. However, differences among the antihistamines in relation to a lack of significant interaction with drug transporter molecules and somnolence in excess of placebo may provide some advantages for the overall profile of desloratadine compared with fexofenadine and levocetirizine. Based on these pharmacological characteristics, as well as clinical endpoints such as symptom scores, quality-of-life surveys, inflammatory cell counts and investigators' global evaluations, we conclude that desloratadine, fexofenadine and levocetirizine are all efficacious treatments for AR and CIU. When comparing the efficacy and safety profiles of the newest second-generation antihistamines – desloratadine, fexofenadine and levocetirizine – many pharmacological and clinical criteria must be considered. As a class, second-generation antihistamines are highly selective for the H(1) receptor.