

## For the Patient

The full report is titled "Treatment with azelastine hydrochloride and fluticasone propionate in a single delivery device of young children and adolescents with allergic rhinitis." It is in the July 2020 issue of *Allergy Asthma Proceedings* (volume 41, pages 232 to 239). The authors are W. E. Berger, T. B. Mustakov, T. Z. Kralimarkova, G. Christoff, and T. A. Popov.

*For the Patient* is provided to physicians so that the patients can better understand the language of modern medicine.

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### **An antihistaminic/corticosteroid topical combination therapy for allergic rhinitis in children**

Allergic rhinitis (AR) is the most common chronic noncommunicable disease worldwide, affecting any age during the human life span but of particular concern to parents and caregivers of children afflicted with the condition. Antihistaminic medications administered orally together with corticosteroids delivered by nasal spray provide the most effective way of bringing the condition under control. The only combination preparation currently available for topical treatment of AR consists of azelastine hydrochloride and fluticasone propionate in a single advanced delivery system, which has proven its efficacy and safety in clinical trials of adult patients with AR. In a recent report, Berger, Mustakov, Kralimarkova, Christoff, and Popov from the Department of Medicine, University of California, and the Medical University Sofia, Sofia, Bulgaria, reviewed current usage of the combination preparation in adolescents (ages < 18 years) and children (ages < 12 years).

#### **Why Did the Researchers Do this Particular Study?**

To critically review usage of the combination preparation and identify gaps in the existing data for children in all different strata of the pediatric age.

#### **Who or What Was Studied?**

The medical literature was reviewed for publications on the efficacy and safety of the combined formulation of azelastine and fluticasone in a single delivery device in adolescents (ages < 18 years) and children (ages < 12 years).

#### **How Was the Study Done?**

The researchers found that, altogether, 12 peer-reviewed articles were published about trials that also involved subjects in different strata of the pediatric age; 7 of these studies pooled adolescents and adults together. Three articles presented the results of studies in children ages 4 to 11 years specifically designed to overcome the difficulties children experience in expressing themselves verbally.

#### **What Were the Limitations of the Study?**

Because this was a retrospective study performed a medical literature search, it may have information bias due to possible inaccurate clinical records, loss to follow up, and missing data.

#### **What Are the Implications of the Study?**

As opposed to asthma inhalation treatment in which a long list of double and triple combinations of compounds in a single inhaler have gained access to the pharmaceutical market, there is just one combination of an antihistamine plus corticosteroid for nasal application, which has become available recently for AR management primarily for adult patients with AR. The results of the present study demonstrate that all trials reviewed with the novel combination product that involved young children and adolescents provided favorable results and documented its efficacy, effectiveness, and safety. However, the numbers of the youngest children (ages, 4 and 5 years) were low, which suggests that further data about safety and efficacy in this age group are needed. □