Selections from international journals

Nahla M. Heshmat
Professor of Pediatrics, Ain Shams University

J Allergy Clin Immunol. 2012;130(2):332-42.

Key findings and clinical implications from The Epidemiology and Natural History of Asthma: Outcomes and Treatment Regimens (TENOR) study.

Chipps BE, Zeiger RS, Borish L, Wenzel SE, Yegin A, Hayden ML, Miller DP, Bleecker ER, Simons FE, Szefler SJ, Weiss ST, Haselkorn T; TENOR Study Group.

Patients with severe or difficult-to-treat asthma are an understudied population but account for considerable asthma morbidity, mortality, and costs. The Epidemiology and Natural History of Asthma: Outcomes and Treatment Regimens (TENOR) study was a large, 3-year, multicenter, observational cohort study of 4756 patients (n = 3489 adults ≥18 years of age, n = 497 adolescents 13-17 years of age, and n = 770 children 6-12 years of age) with severe or difficult-to-treat asthma. TENOR's primary objective was to characterize the natural history of disease in this cohort. Data assessed semiannually and annually included demographics, medical history, comorbidities, asthma control, asthma-related health care use, medication use, lung function, IgE levels, self-reported asthma triggers, and asthma-related quality of life. We highlight the key findings and clinical implications from more than 25 peer-reviewed TENOR publications. Regardless of age, patients with severe or difficult-to-treat asthma demonstrated high rates of health care use and substantial asthma burden despite receiving multiple long-term controller medications. Recent exacerbation history was the strongest predictor of future asthma exacerbations. Uncontrolled asthma, as defined by the 2007 National Heart, Lung, and Blood Institute guidelines' impairment domain, was highly prevalent and predictive of future asthma exacerbations; this assessment can be used to identify high-risk patients. IgE and allergen sensitization played a role in the majority of severe or difficult-to-treat asthmatic patients.

J Allergy Clin Immunol. 2012;130(3 Suppl):S1-S24.

Use and interpretation of diagnostic vaccination in primary immunodeficiency: A working group report of the Basic and Clinical Immunology Interest Section of the American Academy of Allergy, Asthma & Immunology.

Orange JS, Ballow M, Stiehm ER, Ballas ZK, Chinen J, De La Morena M, Kumararatne D, Harville TO, Hesterberg P, Koleilat M, McGhee S, Perez EE, Raasch J, Scherzer R, Schroeder H, Seroogy C, Huissoon A, Sorensen RU, Katial R.

A major diagnostic intervention in the consideration of many patients suspected to have primary immunodeficiency diseases (PIDDs) is the application and interpretation of vaccination. Specifically, the antibody response to antigenic challenge with vaccines can provide substantive insight into the status of human immune function. There are numerous vaccines that are commonly used in healthy individuals, as well as others that are available for specialized applications. Both can potentially be used to facilitate consideration of PIDD. However, the application of vaccines and interpretation of antibody responses in this context are complex. These rely on consideration of numerous existing specific studies, interpolation of data from healthy populations, current diagnostic guidelines, and expert subspecialist practice. This document represents an attempt of a working group of the American Academy of Allergy, Asthma & Immunology to provide further guidance and synthesis in this use of vaccination for diagnostic purposes in consideration of PIDD, as well as to identify key areas for further research.

Pediatr Allergy Immunol. 2012;23(4):300-6.

Perspectives on allergen-specific immunotherapy in childhood: an EAACI position statement.

Calderon MA, Gerth van Wijk R, Eichler I, Matricardi PM, Varga EM, Kopp MV, Eng P, Niggemann B, Nieto A, Valovirta E, Eigenmann PA, Pajno G, Bufe A, Halken S, Beyer K, Wahn U.

This article is the result of consensus reached by a working group of clinical experts in paediatric allergology as well as representatives from an ethical committee and the European Medicine Agency (EMA). The manuscript covers clinical, scientific, regulatory and ethical perspectives on allergen-specific immunotherapy in childhood. Unmet needs are identified. To fill the gaps and to bridge the different points of view, recommendations are made to researchers, to scientific and patient organizations and to regulators and ethical committees. Working together for the benefit of the community is essential. The European Academy of Allergy and Clinical Immunology (EAACI) serves as the platform of such cooperation.

Allergy. 2012;67(8):976-97.

International consensus on (ICON) pediatric asthma.

Papadopoulos NG, Arakawa H, Carlsen KH, Custovic A, Gern J, Lemanske R, Le Souef P, Mäkelä M, Roberts G, Wong G, Zar H, Akdis CA, Bacharier LB, Baraldi E, van Bever HP, de Blic J, Boner A, Burks W, Casale TB, Castro-Rodriguez JA, Chen YZ, El-Gamal YM, Everard ML, Frischer T, Geller M, Gereda J, Goh DY, Guilbert TW, Hedlin G, Heymann PW, Hong SJ, Hossny EM, Huang JL, Jackson DJ, de Jongste JC, Kalayci O, Aït-Khaled N, Kling S, Kuna P, Lau S, Ledford DK, Lee SI, Liu AH, Lockey RF, Lødrup-Carlsen K, Lötvall J, Morikawa A, Nieto A, Paramesh H, Pawankar R, Pohunek P, Pongracic J, Price D, Robertson C, Rosario N, Rossenwasser LJ, Sly PD, Stein R, Stick S, Szefler S, Taussig LM, Valovirta E, Vichyanond P, Wallace D, Weinberg E, Wennergren G, Wildhaber J, Zeiger RS.
Asthma is the most common chronic lower respiratory disease in childhood throughout the world. Several guidelines and/or consensus documents are available to support medical decisions on pediatric asthma. Although there is no doubt that the use of common systematic approaches for management can considerably improve outcomes, dissemination and implementation of these are still major challenges. Consequently, the International Collaboration in Asthma, Allergy and Immunology (iCAALL), recently formed by the EAACI, AAAAI, ACAAI, and WAO, has decided to propose an International Consensus on (ICON) Pediatric Asthma. The purpose of this document is to highlight the key messages that are common to many of the existing guidelines, while critically reviewing and commenting on any differences, thus providing a concise reference. The principles of pediatric asthma management are generally accepted. Overall, the treatment goal is disease control. To achieve this, patients and their parents should be educated to optimally manage the disease, in collaboration with healthcare professionals. Identification and avoidance of triggers is also of significant importance. Assessment and monitoring should be performed regularly to re-evaluate and fine-tune treatment. Pharmacotherapy is the cornerstone of treatment. The optimal use of medication can, in most cases, help patients control symptoms and reduce the risk for future morbidity. The management of exacerbations is a major consideration, independent of chronic treatment. There is a trend toward considering phenotype-specific treatment choices; however, this goal has not yet been achieved.