Selections from international journals

Nahla M. Heshmat
Professor of Pediatrics, Ain Shams University

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A new approach to clinical care of juvenile idiopathic arthritis: the Juvenile Arthritis Multidimensional Assessment Report.

Filocamo G, Consolaro A, Schiappapietra B, Dalprà S, Lattanzi B, Magni-Manzoni S, Ruperto N, Pistorio A, Pederzoli S, Civino A, Guseinova D, Masala E, Viola S, Martini A, Ravelli A.

OBJECTIVE: To develop and test a new multidimensional questionnaire for assessment of children with juvenile idiopathic arthritis (JIA) in standard clinical care. METHODS: The Juvenile Arthritis Multidimensional Assessment Report (JAMAR) includes 15 parent or patient-centered measures or items that assess well-being, pain, functional status, health-related quality of life, morning stiffness, disease activity, disease status and course, joint disease, extraarticular symptoms, side effects of medications, therapeutic compliance, and satisfaction with illness outcome. The JAMAR is proposed for use as both a proxy-report and a patient self-report, with the suggested age range of 7-18 years for use as a self-report. From March 2007 to September 2009, the questionnaire was completed by the parents of 618 children with JIA in 1814 visits and by 332 children in 749 visits. RESULTS: The JAMAR was found to be feasible and to possess face and content validity. All parents and children reported that the questionnaire was simple and easy to understand. Completion and scoring appeared to be quick, requiring < 15 minutes. There were very few missing data. Parents' proxy-reported and children's self-reported data were remarkably concordant. The JAMAR provided thorough information for the study patients about recent medical history and current health status. It performed similarly across different children's ages and characterized the level of disease activity and disability well. CONCLUSION: The development of the JAMAR introduces a new approach in pediatric rheumatology practice. This new questionnaire may help enhance the quality of care of children with JIA.

Ann Allergy Asthma Immunol. 2011; 107:207-13.

Written action plan use in inner-city children: is it independently associated with improved asthma outcomes?

Sunshine J, Song L, Krieger J.

BACKGROUND: Guidelines from the National Asthma Education and Prevention Program stipulate that multicomponent self-management interventions for asthma should include a written action plan (WAP). However the specific, independent effect of WAPs in improving outcomes remains unclear. OBJECTIVE: To measure the association between WAP use during the previous year and improved asthma outcomes. METHODS: We conducted a longitudinal quasi-experimental study using data from the Healthy Homes II (HH-II) randomized controlled trial in Seattle, WA. Action plan use during the previous year was measured at exit of HH-II. A participant was a WAP user if he used his action plan every day, almost every day, or once per week, and non-user if he did not meet these criteria. Sensitivity analyses explored less stringent criteria for WAP user designation. Prespecified outcomes were baseline-to-exit changes in asthma control in the previous 2 weeks, Pediatric Asthma Caregiver Quality of Life Scale score, and urgent health services utilization. We used robust linear and logistic regression to compare outcomes across groups. RESULTS: Two hundred fifty-one patients participated: 112 WAP users; 139 non-users. After adjustment, no significant differences in outcomes were observed between WAP users and non-users. Among a subgroup of participants with recent urgent health services utilization, WAP users had better asthma control than non-users. Changing WAP user criteria to include those who simply owned an action plan, irrespective of use, did not alter our results. CONCLUSION: WAP use during the previous year was not associated with improved outcomes compared with non-use. Additional studies are needed to assess the long-term, independent benefit of this universally recommended intervention.

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Stinging insect hypersensitivity: a practice parameter update 2011.

Golden DB, Moffitt J, Nicklas RA, Freeman T, Graft DF, Reisman RE, Tracy JM, Bernstein D, Blessing-Moore J, Cox L, Khan DA, Lang DM, Oppenheimer J, Portnoy JM, Randolph C, Schuller DE, Spector SL, Tilles SA, Wallace D; Joint Task Force on Practice Parameters; American Academy of Allergy, Asthma & Immunology (AAAAI); American College of Allergy, Asthma & Immunology (ACAAI); Joint Council of Allergy, Asthma and Immunology.

These parameters were developed by the Joint Task Force on Practice Parameters, representing the American Academy of Allergy, Asthma & Immunology (AAAAI); the American College of Allergy, Asthma & Immunology (ACAAI); and the Joint Council of Allergy, Asthma and Immunology. The AAAAI and the ACAAI have jointly accepted responsibility for establishing "Stinging insect hypersensitivity: a practice parameter update II." Because this document incorporated the efforts of many participants, no single individual, including those who served on the Joint Task Force, is authorized to provide an official AAAAI or ACAAI interpretation of these practice parameters. Any request for information about or an interpretation of these practice parameters by the AAAAI or the ACAAI should be directed to the Executive Offices of the AAAAI, the ACAAI, and the Joint Council of Allergy, Asthma and Immunology. This is a complete and comprehensive document at the current time. The medical environment is a changing environment, and not all recommendations will be appropriate for all patients. These parameters are not designed for use by pharmaceutical companies in drug promotion. The Joint Task Force understands that the cost of diagnostic tests and therapeutic agents is an important concern that may appropriately influence the work-up and treatment chosen for a given patient. The Joint Task Force recognizes that the emphasis of our primary recommendations regarding a medication may vary, for example, depending on third party payer issues and product patent expiration dates. However, since a given test or agent's cost is so widely variable, and there is a paucity of pharmacoeconomic data, the Joint Task Force generally does not consider cost when formulating Practice Parameter recommendations. In extraordinary circumstances, when the cost benefit of an intervention is prohibitive as supported by pharmacoeconomic data, commentary may be provided.

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Autoantigen based vaccines for type 1 diabetes.

Nicholas D, Odumosu O, Langridge WH.

Type 1 diabetes is an organ-specific autoimmune disease caused by chronic inflammation (insulitis), which damages the insulin producing β-cells of the pancreatic Islets of Langerhans. Dendritic cells (DCs) are generally the first cells of the immune system to process β-cell autoantigens and, by promoting autoreactivity, play a major role in the onset of insulitis. Although no cure for diabetes presently exists, the onset of insulitis can be diminished in the non-obese diabetic (NOD) mouse type 1 diabetes model by inoculation with endogenous β-cell autoantigens. These include the single peptide vaccines insulin, GAD(65) (glutamic acid decarboxylase), and DiaPep277 (an immunogenic peptide from the 60-kDa heat shock protein). DiaPep277 is the only autoantigen so far to demonstrate positive results in human clinical trials. Diamyd (an alum adjuvant + recombinant GAD(65) protein formulation) has shown great promise for suppressing β-cell autoreactivity in phase I and II clinical trials. While Diamyd preserved residual insulin secretion in early-onset type 1 diabetes patients, it did not reduce the amounts of insulin required to maintain euglycemia. Recently, multi-component vaccines composed of the anti-inflammatory cytokine (IL-10) and insulin or GAD(55) linked to an immunostimulatory molecule, the cholera toxin B subunit, were shown to safely and completely inhibit diabetes onset in NOD mice. This result suggests that multi-component vaccine strategies are promising for prevention and reversal of diabetes autoimmunity in humans. Here we focus on the development of autoantigen vaccines for type 1 diabetes and demonstrate that multi-component vaccines are promising candidates for type 1 diabetes clinical studies.