489 Quality Evaluation of Allergen Immunotherapy Guidelines Worldwide Using AGREE-II

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RATIONALE: Since 1988 numerous AIT-guidelines (AIT-GLs) have been developed by national and international organizations to guide physicians in AIT. Even so, AIT is still severely under-used. AGREE-II was developed in 2010 by Mc Master university methodologists to evaluate guideline quality.

METHODS: The project team consisted of allergists, knowledgable in AIT, trained in AGREE II, with methodologist's guidance. AIT-GLs in any language were sought from 1980-today in Medline, Embase and contacting local AIT experts; AIT-GLs were AGREE II evaluated by 2 independent reviewers; discrepancies were resolved in a 2nd round, by team-discussion or methodologists' consulting.

RESULTS: We found 31 AIT-GLs (16 post-2010), ranging from local consensus reports to international position papers (EAACI, AAAAI-ACAAI, WAO). Pre-2010 GLs' score ranged 1.6-5.2/7 and post-2010 GLs' 1.6-6/7. The best evaluations went to the German AIT-GL (6.0) followed by the AAAAI/ACAAI (5.2) and the Mexican GL (5.1). These were the also the only 3 GLs that received 'yes' of both evaluators to the last item: 'I would recommend this GL for use'. The domains of Stakeholder involvement and Rigor of Development only scored 3/7, but Domain 'Applicability' scored the lowest. Strikingly, newer guidelines only scored better in 'Editorial Independence' and 'Global evaluation'.

CONCLUSIONS: In AIT-GLs there is still a lot of room for improvement, especially in two domains, crucial in dissemination (stakeholder involvement and applicability). For some the 'Scientific rigor' domain flawed. In situations with limited resources, transculturizing a high-quality existing GL might be appropriate. AGREE-II could help to pick quality candidate GLs for such procedure.

490 Reduction in the need of inhaled corticosteroids in children with astmha recieving allergen specific immunotherapy

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RATIONALE: One of the described benefits of allergen specific subcutaneous immunotherapy (SCIT) is its potential effect on the reduction of the medication needed for the treatment of allergic diseases. Our aim is to assess the reduction of inhaled corticosteroids (ICS) in children with asthma under SCIT.

METHODS: A retrospective study was conducted, obtaining data from asthma patients' medical records of a regional allergy center in Monterrey, Mexico, from March 2015 to March 2016. Two age groups were considered and ICS was reviewed before and six months after starting SCIT.

RESULTS: 169 patients were included. In the first group (N=128; 5-11 years old), 57.8% were treated with SCIT, of which 37.8% never used ICS. From the patients (42.2%) who used ICS, 14.9% continued them and 41.9% quitted them 6 months after the SCIT onset (p=0.24). The proportion of patients who discontinued ICS after 6 months was higher in the group receiving SCIT (p=0.002). In the second group (N=41; 12-18 years old), 73.2% were treated with SCIT, 73.3% of the patients used ICS, of which 16.6% continued them and 56.6% discontinued them 6 months after the SCIT onset (p=0.29). There was no difference between patients under SCIT with ICS and the patients who discontinued them (p=0.48). Other allergic comorbidities found were: allergic rhinitis (AR) (92.3%), AR and atopic dermatitis (AD) (6.5%), AR and food allergy (0.6%), and AD (0.6%).

CONCLUSIONS: Reduction in the need for ICS was higher in children under 11 years old receiving SCIT compared with patients who did not receive it.

491 Synbiotic and the Possible Increase of T Helper 1 Cells during Subcutaneous Immunotherapy for Allergic Rhinitis

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RATIONALE: Investigation the synergistic effect of synbiotic in clinical and immunologic efficacy of subcutaneous allergen immunotherapy in allergic rhinitis patients.

METHODS: Twenty- eight individuals aged between 5-55 years with allergic rhinitis were enrolled in a double blind, placebo controlled study. All patients who met the eligibility criteria were randomly divided into three groups: A) Immunotherapy+ synbiotic, B) Immunotherapy+ placebo and C) just synbiotic. Group A and C participants received 1 synbiotic capsule per day during the first two months of treatment. Participants underwent clinical and laboratory assessment in week 8, and at the end of intervention, month 6.

RESULTS: improvement in symptom score and quality of life were occurred in all groups, yet there was no significant difference between groups A vs. B (P value= >0.99) after 6 month of treatment and neither between groups A vs. C (P value=0.25) after 2 month of treatment. In immunologic parameters, there were significant enhancement in T helper type 1 cell percentage in group A rather than group B (P value= 0.022) and also in group A rather than group C (P value= 0.023. There was also no significant difference between groups B vs. C (P value= 0.85).

CONCLUSIONS: in this study we conclude that adding symbiotic to SCIT increase TH1 cells percentage although this effect is temporary. there was no significant statistically difference in clinical response among the groups. Future studies with large sample size could possibly make this difference statistically significant.