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Treatment of house dust mite allergy

House dust mites (HDM) induce allergic rhinitis and asthma. Although the links between rhinitis and an IgE mediated allergy are clear, there are many factors which may induce symptoms in HDM allergy. In particular asthma exacerbations are mostly associated with virus infections, and a large number of HDM allergic patients present intermittent rhinitis. Thus, it is not always easy to demonstrate efficacy of specific immunotherapy in HDM allergy.

There has been a thorough review of the literature concerning the efficacy of *Dermatophagoides* species in rhinitis and asthma using subcutaneous and sublingual allergen specific immunotherapy (SCIT and SLIT). As in some other areas of medicine, the quality of reporting of most immunotherapy trials is low, and SCIT or SLIT published randomised, double-blind, placebo-controlled trials with HDM do not usually meet all of the criteria of the CONSORT Statement.

To systematically develop explicit, unambiguous and transparent clinical recommendations for treatment of allergic rhinitis based on current best evidence, the ARIA recommendations used the GRADE (Grading of Recommendations Assessment, Development and Evaluation) approach. The ARIA recommendations are:

- The ARIA GRADE suggests SCIT in adults with seasonal (weak recommendation | moderate quality evidence) and perennial AR due to house dust mites (weak recommendation | low quality evidence)
- In children with AR, the ARIA GRADE suggests SCIT (weak recommendation | low quality evidence)
- In adults with seasonal or perennial AR, the ARIA GRADE suggests SLIT (weak recommendation | high quality evidence)
- In children with AR due to pollens, the ARIA GRADE suggests SLIT (weak recommendation | moderate quality evidence). In children with AR due to house dust mites, the ARIA GRADE suggests that clinicians do not administer sublingual immunotherapy outside rigorously designed clinical trials (weak recommendation | very low quality evidence). The level of evidence for SLIT in HDM rhinitis in children is very low, possibly because the outcomes used to report RCTs are not appropriate in this age group
- In patients with AR and asthma, we suggest subcutaneous specific immunotherapy for treatment of asthma (weak recommendation | moderate quality evidence)
- In patients with AR and asthma, we suggest sublingual specific immunotherapy for treatment of asthma (weak recommendation | low quality evidence)

There is a need for RCTs in the appropriate patient population using relevant outcome measures which are not yet defined in children. New large and well-conducted RCTs in SLIT have been presented as abstracts in rhinitis and asthma, but the data are not fully published yet. These studies will have an impact on the evidence.

