# systematic review

J Torres-Borrego, M Praena-Crespo, L Moral-Gil, G Vizmanos-Lamotte, O Asensio De La Cruz, M Tortajada-Girbés, FJ Pelegrini-Belinchón

### INTRODUCTION AND AIMS

- The definition and diagnosis of asthma in the first years of life are controversial mainly due to difficulty of performing pulmonary function tests and the frequent disappearence of symptoms with age.
- The aim of this review is to know how clinical guidelines are considering the concept and diagnosis of asthma in preschool children

## MATERIAL AND METHODS

Working Group: 7 reviewers from 4 Paediatric Spanish Paediatric Societies:

- Clinical Immunology, Allergology and Asthma (SEICAP)
- Pulmonology (SENP)
- Out-of-hospital and primary care (SEPEAP)
- Primary Care (AEPAP)

#### Search Strategy

- Search terms: (Practice Guideline[ti] OR Guidelines[ti] OR Practice Guideline[pt]
  OR Guideline[pt] OR Consensus Development Conference[pt] OR Practice Guidelines as Topic[MeSH]) AND ("Asthma"[Mesh] OR asthma\*[ti]).
- No language restrictions were applied.
- The search was complemented by a free search on the part of the participating investigators
- Questionnaires were designed to find out how the guidelines are considering the diagnosis of asthma in children, especially in terms of the age, and the premises (clinical criteria or complementary tests) to make it.

The following Key questions were searched in the guidelines included:

- Is there a specific definition for asthma under 6 years of age? Is the definition of asthma at this age avoided, or is it defined in the same way as in older children and in adults?
- Is there an age from which a diagnosis of asthma can be established?
- Are pulmonary function tests a limiting factor that precludes the possibility of diagnosing asthma in preschoolers?
- Are there defined and objective criteria for the diagnosis of asthma in children under 6 years of age, or it depend on physician interpretation of the global clinical findings?
- Is it possible to use the term asthma in reference to wheezing that subside over time?

The authors answered the questionnaires and contributed with comments via e-mail to clarify the discrepancies, that were resolved by agreement.

### RESULTS

- 2338 references were obtained in Trip Database and PubMed
- 22 documents were selected (fig).
- In most guidelines, the concept and definition of asthma are closely linked to their diagnosis.
- Most guidelines make no distinction in defining asthma by age (adults, children or preschoolers).
- Most guidelines recognize, that there is not a limit of age to establish the diagnosis of asthma, but highlight the difficulty to establish the diagnosis under 5-6 years
- Flow diagram of the selection of clinical guidelines included in the systematic review. 2338 records or citations identified by the initial search in PubMed and Trip Database 2308 documents, records or tations deleted in duplicates or because their irrelevance is evident 30 documents screened (records or citations) 7 documents added with the nonsystematic search by the reviewers 37 documents selected for detailed review 15 documents are discarded: • 1 to be published in 2006 8 for not containing anything or minimal information about the diagnosis of asthma in the small child 6 because its content refers to or is included in that of another guide 22 documents included for the systematic review 3 previously selected documents discarded because they 3 updates of the documents correspond to previous versions included during the review that are replaced by a new version process 22 documents finally included in the systematic review (20 guides, for the integration of 2 complementary documents of the same guide twice)
- Spirometry is not essential to establish the diagnosis of asthma in preschoolers.
- The diagnose of asthma is based on the subjective interpretation of clinical findings, response to treatment and exclusion of alternative diagnoses.
- Some guidelines accept that asthma may remit over time and that fact would not impede establishing the diagnosis

### CONCLUSIONS

There is an almost generalized though not unanimous agreement among most national and international guidelines to consider that the diagnosis of asthma in the preschool child is clinical and that it can be established at any age, even although respiratory function tests cannot be performed.