

Defining and diagnosing asthma in the infant and the preschooler: A systematic review

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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 disappearance 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:

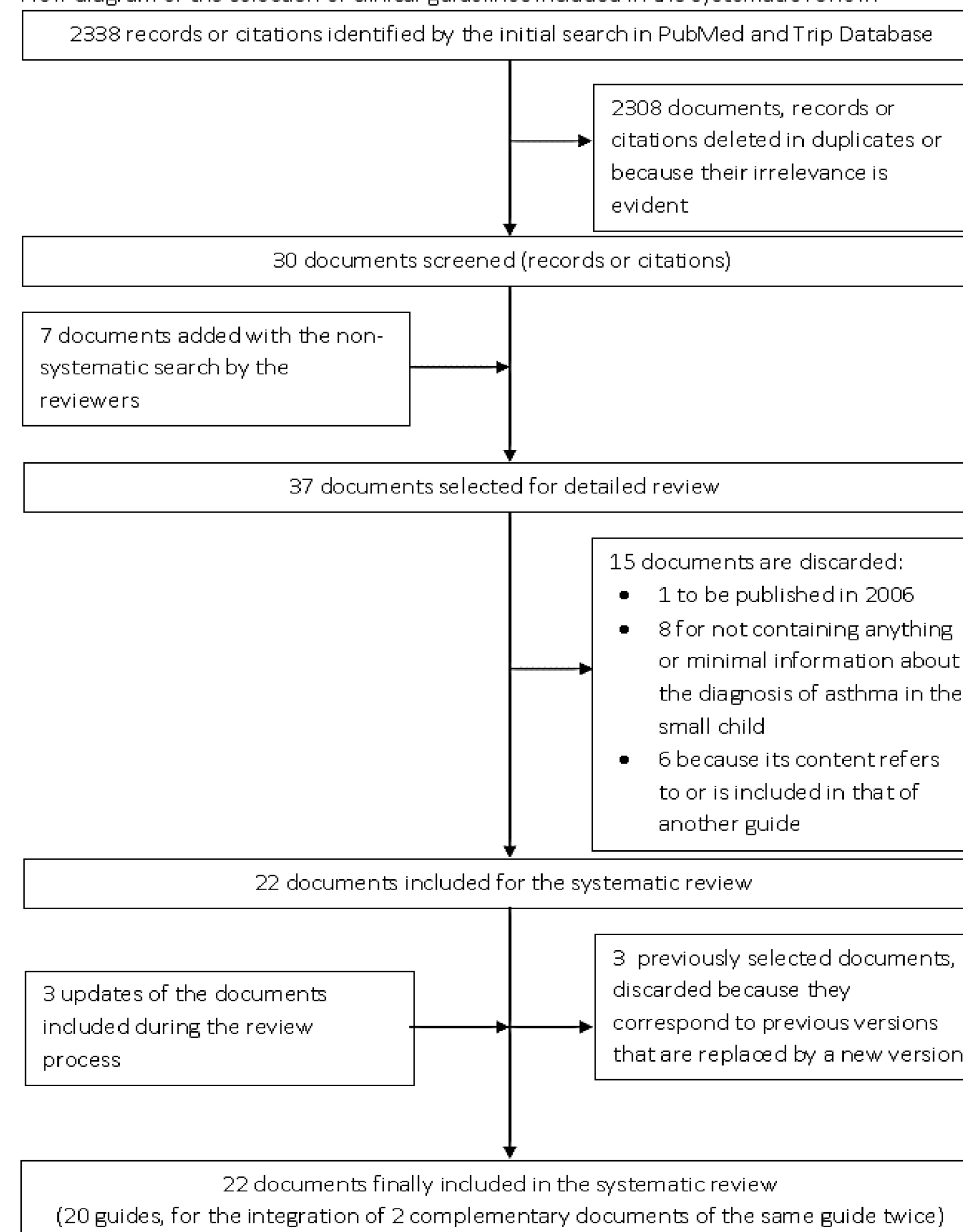
- Is there a specific definition for asthma under 6 years of age? Is the definition of asthma at this age avoided, or is it defined in the same way as in older children and in adults?
- Is there an age from which a diagnosis of asthma can be established?
- Are pulmonary function tests a limiting factor 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.



- **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.