



Title Lower Respiratory Tract Infections of a Viral Origin in the Pediatric Population: Systematic Review of Spanish Literature

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Aim

To systematically collect and analyze the entire bibliography of works originating in Spain with respect to lower respiratory tract infections in the pediatric population and the identified viral causal agents.

Conclusions and results

The studies used show that lower respiratory tract infections and bronchiolitis represent a load in terms of morbidity, primarily with viral causes, among the infantile population and especially in those younger than 2 years of age or with an underlying pathology. However, the design of the studies analyzed and data collection had many shortcomings. The risk of hospitalization and seriousness are closely related to patients' associated morbidity. In healthy people, the variability of hospitalization rates is well known.

Identification of the etiological agent depends on multiple factors, especially the age of the child, the season of the year, and the thoroughness of the search for the causal viruses. Clinics are undifferentiated among the potential viral agents involved. It would be necessary to design and undertake multicenter and demographic studies with well-defined criteria that are explicit with respect to inclusion and seriousness to quantify and better specify the load of this illness and the role that respiratory syncytial virus and other causal agents play in it. An epidemiological surveillance system with a network of watch centers could help overcome these limitations and would provide data on these viruses, not only among the pediatric population, but also in the elderly.

Methods

A systematic search was carried out for articles published by Spanish researchers that made reference to aspects related to the etiology (causal agent) of respiratory or lower respiratory tract infections, in particular bronchiolitis. Criteria for inclusion were: articles published between 1995 and 2007; studies addressing a pediatric population

(<14-16 years of age); Spanish health centers; identified etiological agent; more than 15 patients; and written in Spanish, English, or Catalan. Studies were excluded if, eg, they were performed on patients with serious pathologies or who were immunodepressed. Clinical case studies or reviews without primary data that compared diagnostic techniques or evaluated therapeutics and other types of bronchiolitis were not excluded. The studies included were analyzed using publication data (author, journal, year, language, study funding), the type of study (data collection, design, number of health centers, study period), population and study location, selection criteria (definitions), examination of the etiological agent, and the evolution and main conclusions of the study.