

Daily inhaled corticosteroids or montelukast for preschoolers with asthma or recurrent wheezing A systematic review

Castro■Rodriguez, J. A., Rodriguez■Martinez, C. E., & Ducharme, F. M. (2018). Daily inhaled corticosteroids or montelukast for preschoolers with asthma or recurrent wheezing: a systematic review. *Pediatric pulmonology*, 53(12), 1670-1677. <10.1002/ppul.24176> Accessed 22 Apr 2021.

Abstract

Background: Most international asthma guidelines recommend that children ≤ 5 years with asthma or recurrent wheezing be treated with daily low■ moderate dose inhaled corticosteroids (ICS) as the preferred controller and leukotriene receptor antagonists (LTRA) as alternative therapy. There is no systematic review comparing the efficacy of ICS versus LTRA monotherapy in this age group. **Objective:** To compare the efficacy of daily ICS versus LTRA in preschoolers with asthma or recurrent wheezing. **Methods:** Randomized, prospective, controlled trials published by December 2017, with a minimum of 3■month therapy with daily ICS versus LTRA were identified. The co■primary outcomes were the number of wheezing episodes and daily symptom score. Secondary outcomes included unscheduled emergency visits, need of rescue systemic corticosteroids (SC), hospitalization for exacerbations, lung function, and adverse effects. **Results:** Of 29 trials identified, six studies (n = 3204 patients, 62% males, age range: 6■54 months) met the inclusion criteria; two were at low risk of bias. Five pertained to children with asthma; one to those with recurrent wheezing. No outcomes were similarly reported in the six studies, preventing meta■analysis. Based on trials at lowest risk of bias and the largest open■labelled studies, ICS was associated with better control of symptoms and less exacerbations than LTRA. And also less need for rescue SC. Insufficient data of high quality prevented firm conclusions on other secondary outcomes. **Conclusions:** In preschoolers with asthma or recurrent wheezing, daily ICS appears more effective than daily LTRA for improving symptom control and decreasing exacerbations, particularly those requiring rescue SC, although the magnitude of benefit remains to be quantified..

Keywords

Inhaled corticosteroids, Meta■analysis, Montelukast, Persistent asthma, Preschoolers, Systematic review.