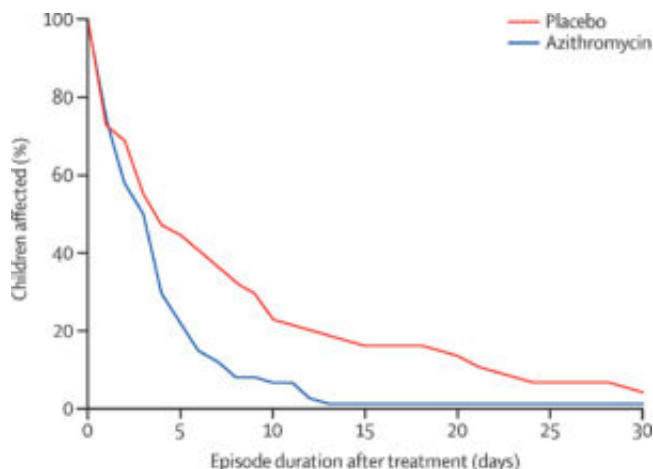


## Antibiotics for treatment of asthma-like episodes in childhood

Childhood asthma is often preceded by recurrent episodes of asthma-like symptoms in relation to airway infections in the first years of life. Treatment of such episodes represents a major unmet clinical need; they are the most common cause of admission to hospital in young children, are a reason for stress and anxiety for families, and cause a major draw on health-care resources.



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We have previously demonstrated that bacteria and viruses are equally associated with the risk of acute episodes of asthma-like symptoms in young children, suggesting antibiotics as a potential treatment for such episodes.

Present guidelines do not recommend antibiotics for treatment of episodes of asthma-like symptoms in young children, yet antibiotics remain among the most commonly prescribed drugs in these episodes.

Our study published in *Lancet Respiratory Medicine* in 2015 is, to our knowledge, the first randomized controlled trial of azithromycin (antibiotic) treatment of acute episodes of asthma-like symptoms in children aged 1–3 years with a history of recurrent episodes of such symptoms.

Children aged 1–3 years from our birth cohort Copenhagen Prospective Studies on Asthma in Childhood<sub>2010</sub> (COPSAC<sub>2010</sub>), who were diagnosed with recurrent asthma-like symptoms were recruited into this study. We randomly allocated 158 asthma-like episodes in 72 children (79 (50%) to azithromycin and 79 (50%) to placebo) in a double-blind manner to evaluate the effect of the antibiotic treatment on the symptom duration of the asthma-like episode after treatment.

We demonstrated a clinically significant overall shortening of symptom duration of the asthma-like episode by 63% after intervention. The mean duration of the episode after treatment was 3.4 days for children receiving azithromycin compared with 7.7 days for children receiving placebo. The effect increased with early initiation of treatment.

Our findings suggest that azithromycin might be beneficial after medical assessment of an acute asthma-like episode in young children with a known history of such symptoms and without clinical signs of pneumonia.

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## **Publication**

[Azithromycin for episodes with asthma-like symptoms in young children aged 1-3 years: a randomised, double-blind, placebo-controlled trial.](#)

Stokholm J, Chawes BL, Vissing NH, Bjarnadóttir E, Pedersen TM, Vinding RK, Schoos AM, Wolsk HM, Thorsteinsdóttir S, Hallas HW, Arianto L, Schjørring S, Kroghfelt KA, Fischer TK, Pipper CB, Bønnelykke K, Bisgaard H.

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