POEMs

A Simple Algorithm for Children with Chronic Cough

Clinical Question

Is an algorithm useful in determining treatment for children with chronic cough lasting at least four weeks?

Bottom Line

In children with chronic cough, a simple approach of ruling out specific indicators of cause, followed by treating a "wet" cough with antibiotics, results in a significant decrease in the duration of cough. Some of the causes of chronic cough were reactive airway disease, bronchiectasis, and aspiration. (Level of Evidence = 1b)

Synopsis

These investigators enrolled 272 children (average age = 4.5 years) with cough lasting at least four weeks who were seen in specialty clinics in five centers in Australia. Children with chronic respiratory illness (e.g., cystic fibrosis) were excluded. The children were randomly allocated (concealment uncertain) to be treated according to a specific algorithm (early treatment) or to receive usual care from their primary care physician for an additional six to eight weeks before switching to the algorithm protocol if not better. The algorithm starts with identifying indicators of an underlying cause, though it does not specify a particular workup. If no indicators are found, a "wet" cough is treated with antibiotics and a "dry" cough is not treated. This approach resulted in identification of a specific reason for cough in 73.5% of patients, although more than one-half of these diagnoses were a questionable "bacterial bronchitis." Analysis was by intention to treat. Six weeks after the start of the study, 54.3% of children in the algorithm group were cough-free compared with 29.5% in the usual care group (number needed to treat = 4; 95% confidence interval, 3 to 8). The duration of the cough was an additional 6.4 weeks in the algorithm group and 9.1 weeks in the usual care group. Once the usual care group was switched to treatment using the algorithm, cough resolved similarly in 4.2 weeks. The authors did not control for the number of visits, and it is possible that the increased intensity of medical care in the algorithm arm—the additional tests and care visits—could have influenced symptom scores.

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