

Cod liver oil, pediatric upper respiratory tract infections, asthma, and Sickle cell disease

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In a prospective, open-label, cluster-randomized study, we demonstrated that cod liver oil (containing long-chain omega-3 fatty acids, vitamin D, and vitamin A), and a multivitamin-mineral with trace metals, decreased young children's pediatric visits for upper respiratory tract infections. We used this study design because young children do not swallow capsules, and we did not have a matched placebo for liquid, flavored, cod liver oil. These supplements were also useful in a pilot study of children with chronic/recurrent sinusitis. Upper respiratory tract infections frequently cause exacerbations of asthma; these supplements may therefore improve outcomes in young children with asthma. Individual constituents (such as vitamin D) improve outcomes in this patient population; other mechanisms may therefore apply. For children with sickle cell disease, individual administration of vitamin D, vitamin A, or long-chain, omega-3 fatty acids also improves outcomes. Nutrients work together; in the USA, we are currently dealing with the "insufficiency" of multiple nutrients, rather than the "deficiency" of a single nutrient. In clinical medicine, prospective, randomized, open-label, comparative efficacy studies of marketed drugs are now being performed to determine the most effective treatment. However, studies of marketed dietary supplements can be confounded if the supplements are available on the open market; study outcomes then need to be analyzed both for the study dose prescribed and the actual dose taken. We propose that additional prospective, cluster-randomized, open-label, outcomes studies of the nutrients used in our previous studies be performed in children with asthma or sickle cell disease.

Biography

Lindsay is a Senior Attending in Pediatrics at St. Luke's and Roosevelt Hospitals, and an Assistant Clinical Professor of Pediatrics at Columbia University; both are in New York City. She is a Fellow of the American Academy of Pediatrics and a Fellow of the New York Academy of Medicine. Dr. Lindsay is the author of over thirty articles and book chapters in the peer-reviewed medical literature.