

Supplementary Online Content

McEvoy CT, Shorey-Kendrick LE, Milner K, et al. Effect of vitamin C supplementation for pregnant smokers on offspring airway function and wheeze at age 5 years: follow-up of a randomized clinical trial. *JAMA Pediatr*. Published online November 21, 2022. doi:10.1001/jamapediatrics.2022.4401

eTable 1. Wheeze Outcome Variables

eReferences

eTable 2. Characteristics of Children With Completed 12-Month and 5-Year Pulmonary and/or Airway Function Test Results

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Wheeze Outcome Variables

The wheeze outcome quantified between the child’s 4th and 6th birthday was obtained from the following specific questions contained on the standardized respiratory questionnaire^{1,2} which was administered quarterly to the child’s primary caretaker. A positive response to any of these questions on one or more respiratory questionnaire was recorded as a positive for the wheeze outcome. (The numbers below refer to the question number on the respiratory questionnaire and are organized by source: parental report; healthcare provider; medication use)

| Field Label | Response Required/ Composite Notes (which to count) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PARENTAL REPORT | |
| 1. Since [birth/the last time we talked] has your child had wheezing or whistling in his/her chest? | Any yes, ever. Include an overall count of individuals that answered yes as well as a second count of individuals that reported yes 2 or more times |
| 14. Has child had any of the following illnesses? | 14c. Bronchitis=1 (Yes) 14d. Bronchiolitis=1 (Yes) |
| HEALTHCARE PROVIDER | |
| 2. Since [birth/the last time we talked] has a health care provider said that your child has wheezy or asthmatic bronchitis? | Response = 1 (Yes) |
| 3. Since [birth/the last time we talked] has a health care provider said that your child has asthma? | Response = 1 (Yes) |
| 18. Reason for hospitalization code | Response = 3 (Bronchitis) or 4 (Bronchiolitis) or 5 (Wheezing) or 8 (Asthma/asthma exacerbation) |
| 19. Not counting hospitalizations, has [CHILD] been seen by a doctor or health care provider because of problems with wheezing, asthma, or wheezy or asthmatic bronchitis, since [birth/the last time we talked]? Include visits to an emergency room, a doctor's office, urgent care, or clinic. | Response = 1 (Yes) |
| MEDICATION USE | |
| 4a. Since the last time we talked, OR in the last 12 months, which of the following types of medication has child been given? | 4a1. Bronchodilator inhalers/nebulizers, pills, or syrups= 1 (Yes) 4a2. Steroid inhalers/nebulizers= 1 (Yes) 4a3. Leukotriene modifiers=1 (Yes) 4a4. Steroid pills or liquids= 1 (Yes) |

| Field Label | Response Required/ Composite Notes (which to count) |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | 4a6a. If other, specify medication types. Refer to wheeze_med___1=1 (Checked) |
| 10b. Has child been given any medicine for a cough when he/she did not have a cold? | 10b1a. Bronchodilator inhalers/nebulizers, pills, or syrups= 1 (Yes) 10b1b. Steroid inhalers/nebulizers= 1 (Yes) 10b1c. Leukotriene modifiers=1 (Yes) 10b1d. Steroid pills or liquids= 1 (Yes) 10b1f . If other, specify medication types. Refer to wheeze_med___1=1 (Checked) |
| 17. Specify other medications [1] | refer to wheeze_med___1= 1 (Checked) |
| 18c. Nebulizer/Inhaler (breathing) Treatment in Hospital? | Response = 1 (Yes) |
| If Other medication was used, medication was | Response = 1 (Yes) |

[1] Other medications: albuterol, albuterol nebulizer, pills, or syrups, steroid inhalers, nebulizers, leukotriene modifiers, steroid pills or liquids

eReferences

1. Ferris BG. Epidemiology Standardization Project (American Thoracic Society). *Am Rev Respir Dis* 1978;118:1-120.
2. Litonjua AA, Carey VJ, Laranjo N et al. Effect of Prenatal Supplementation With Vitamin D on Asthma or Recurrent Wheezing in Offspring by Age 3 Years: The VDAART Randomized Clinical Trial. *JAMA* 2016;315(4):362-370.

eTable 2. Characteristics of Children With Completed 12-Month and 5-Year Pulmonary and/or Airway Function Test Results

| | 12 Month AFT | 5 Year AFT |
|-----------------------------------------------------|---------------------|-------------------|
| | (n=202) | (n=192) |
| Race, n (%) | | |
| White | 162 (80.2) | 151 (78.6) |
| Non-white | 40 (19.8) | 41 (21.4) |
| Ethnicity, n (%) | | |
| Hispanic or Latino | 8 (4.0) | 5 (2.6) |
| Non-Hispanic or Latino | 193 (95.5) | 186 (96.9) |
| Unknown or not reported | 1 (0.5) | 1 (0.5) |
| Gestational age at randomization (weeks), Mean (SD) | 18.3 (2.9) | 18.3 (2.8) |
| Public Health Insurance, n (%) | 173 (85.6) | 167 (87.0) |
| Maternal Education, of \leq High School, n (%) | 122 (60.4) | 110 (57.3) |
| Maternal asthma, n (%) | 67 (33.2) | 63 (32.8) |
| Gestational age at birth (weeks), Mean (SD) | 38.3 (1.8) | 38.3 (1.8) |
| Infant birthweight (kg), Mean (SD) | 3107.2 (527) | 3127 (526) |
| Female sex, n (%) | 98 (48.5) | 96 (50.0) |