ENVIRONMENTAL FACTORS INFLUENCING ASTHMA SEVERITY AND CONTROL AMONG CHILDREN PARTICIPATING IN HEAL, PHASE II

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Abstract: Pediatric asthma is a growing public health issue, which disproportionately affects low income people and minorities. Childhood asthma also places strain on health care resources because of doctor and hospital visits and the cost of treatment. The prevalence of asthma varies globally, possibly because of different exposure to respiratory infection, indoor and outdoor pollution, and diet. Certain environmental risk factors appear to predispose children to developing asthma and atopic disease. Although the clinical manifestations of asthma are known, the exact relationships between exposure and/or severity of disease are still being examined. We hypothesized that the severity and control of asthma among children participating in the Head-off Environmental Asthma in Louisiana (HEAL) Phase II project was associated with exposure to environmental triggers, such as exposure to environmental tobacco smoke, pet dander, moisture and carpet. To test this hypothesis, we used responses obtained from the Child Asthma Risk Assessment Tool (CARAT) to determine if environmental exposures are associated asthma severity and control among children participating in the study. The CARAT is an assessment tool designed to help clinicians, asthma counselors and parents determine potential risks for children with asthma. Preliminary analysis included data from patients having the CARAT survey, severity assessment and control assessment completed at baseline. Tests for associations produced differences in proportions of environmental exposure among categories of asthma severity and control, but none of the differences were found to be statistically significant. Further analysis of baseline data will continue to monitor the relationship between environmental exposures and both asthma severity and control. Results from the CARAT can be used to identify areas that need to be targeted in the development of effective pediatric asthma interventions.

Key words: pediatric asthma, environmental exposure, CARAT

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