## Group Appointments Improve Asthma Outcomes

BY KERRI WACHTER

Washington — Group drop-in appointments reduce emergency department visits and rescue medicine use in adult patients with asthma, according to the results of a small study.

ED and hospital use was reduced 40%, and the average use of rescue medication decreased by half over a 4-year period among patients seen as part of a week-

ly drop-in group, Dr. Myron Liebhaber reported in a poster at the annual meeting of the American Academy of Allergy, Asthma, and Immunology.

In addition, nocturnal waking was reduced from 4 to 1.5 times per month.

The drop-in group medical appointments were provided for adult patients with chronic asthma, wrote Dr. Liebhaber, an allergist in Santa Barbara, Calif. The program was designed to allow

physicians to evaluate patients with asthma on a weekly basis and to provide patients with asthma education.

Groups were limited to 10 patients, and the appointments typically lasted for 90 minutes. The appointment process proceeded in three steps: vital signs and spirometry (with a nurse), an interim brief history and a physical exam (with a physician), and a group session (with an asthma educator and a behaviorist).

The study included 64 adults, who were followed for 4 years. In all, 42 patients continued the program for 4 years and were considered regular attendees.

A total of 26 patients completed the baseline and 1-year Asthma Quality of Life Questionnaire; scores improved by 373 points in the first year, with most improvement in the symptoms domain.

Dr. Liebhaber reported that he had no relevant financial relationships.

## Exhaled Nitric Oxide May Be Asthma Measure

WASHINGTON — Measures of exhaled nitric oxide levels may add another dimension to the evaluation of asthma, based on data from a study presented at the annual meeting of the American Academy of Allergy, Asthma, and Immunology.

Fractional exhaled nitric oxide (FeNO) may be "a surrogate marker for airway inflammation," Dr. Brian C. Schroer of the Cleveland Clinic said in an interview. Neither the Asthma Control Test (ACT) nor spirometry evaluate airway inflammation.

Dr. Schroer and his colleagues reviewed charts from the asthma-related medical visits of 139 adults, all of whom concurrently completed the ACT, FeNO, and spirometry tests. Approximately 66% of the patients were female, and 78% were white. The study excluded smokers and patients with concomitant conditions including chronic obstructive pulmonary disease, cystic fibrosis, and hypereosinophilic syndrome.

Overall, the average FeNO score was 30.8 parts per billion (ppb), the average ACT score was 19.2, the average forced expiratory volume in 1 second (FEV $_1$ ) score was 86.5%, and the average FEV $_1$ /forced vital capacity (FVC) score was 87.4%. Scatter plots showed no correlation between FeNO and either ACT or spirometry measures.

Dr. Schroer said that he was initially surprised by the finding that inflammation was not increased in patients whose ACT scores were either decreased or normal. But the ACT doesn't take airway inflammation into account, and spirometry measures only airway hyperresponsiveness, he said, "so it doesn't surprise me in the long run that the airway inflammation isn't correlated with these other measurements of asthma control."

The lack of correlation held true when the patients were divided into four groups based on asthma severity.

The study was supported by the William O. Wagner, M.D., Research and Education Fund. Dr. Schroer had no financial conflicts to disclose.

—Heidi Splete





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