RESPIRATORY DISEASES/DISORDERS

ASTHMA—Clinical Outcomes Studies

PRP1

EPIDEMIOLOGY OF NASAL POLYPS AND ITS RELATIONSHIP TO ASTHMA

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OBJECTIVES: To investigate the prevalence of nasal polyposis (NP) in the French population of adults above 17 years old and the typology of these patients in comparison to a control group. **METHODS:** A total of 10,033 individuals of both sexes were interviewed face to face with a validated specific questionnaire. A computer assisted personal interviewing system (CAPI) allowed thanks to an algorithm to separate on the spot the individuals with nasal polyps from the ones without. The individuals with a positive diagnosis of NP were submitted to a detailed questionnaire, which analysed the management of these patients. A control group of 502 individuals without NP was obtained by an adjustment by age and sex to the NP group. **RESULTS:** A total of 212 NP individuals were identified (prevalence of 2.11%) with no difference between sexes and a mean age of 49.4 years. The prevalence of NP tended to increase with age. Frequent complaints were reported by the NP individuals: 30.8% of a blocked nose, 18.7% of a change of the voice, 28.9% of anosmia (moderate and severe in around 50% of the cases), 11.6 % of loss of taste, but only 6.9% of a feeling of discomfort in the face. The mean duration of nasal symptoms was 22.4 years and 70% of patients have seen a doctor for these problems. Asthma was reported by 26.1% of the NP population and by 6% of the control population ($p < 0.0001$). In the NP population the intensity of the asthma was rated as moderate by 27.4% and severe by 36.8% of the patients. **CONCLUSIONS:** The prevalence of NP found in this large population is around 2.1%. It shows that NP patients suffer frequently from anosmia, ageusia and asthma.

ASTHMA—Cost Studies

PRP2

HELIOX IN THE TREATMENT OF STATUS ASTHMATICUS IN THE ICU: A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVE: Treatment of status asthmaticus in the ICU is evolving. Standard therapy consists of frequent Albuterol and Atrovent Nebulizers in addition to oxygen and corticosteroids. Most recently some clinicians have used Heliox in addition to standard therapy. This study focuses on the cost-effectiveness of this add-on therapy modality. **METHODS:** Decision modeling is used to evaluate the cost-effectiveness of treatment modalities for status asthmaticus in the ICU. From 2001 to 2003, 210 patients were admitted to the Ohio State University Medical Center Intensive Care Unit with severe asthma exacerbation. Twenty of these patients received Heliox plus standard therapy and 170 received standard therapy alone. A 4:1 matched case-control design is used to evaluate the effect of Heliox as adjuvant therapy in status asthmaticus. All patients are drawn from the adult population. Cost is measured as Heliox cost, cost of standard medications such as Albuterol, Atrovent and Corticosteroids in addition to ICU standard daily costs. Effectiveness is measured as reduction in length of stay for the two groups. **RESULTS:** Patients who used Heliox had a decreased in length of stay compared to patients who received standard care alone. On average a patient who received Heliox therapy had a decrease of (2.5) days in length of stay, which amounts to a cost saving of about $10,000 in ICU costs. This cost saving does not include indirect costs such as productivity-recovered secondary to the reduced length of stay, and psychic costs such as enjoyment of family. **CONCLUSIONS:** Heliox reduces the length of hospital stay for status asthmaticus patients. The cost/effectiveness ratio and the incremental cost/effectiveness are optimal for these patients versus the non-Heliox patients. Heliox is therefore cost saving and should be contemplated for all asthma exacerbations.

PRP3

LOSSES IN PRODUCTIVITY DUE TO ASTHMA: A POPULATION BASED ESTIMATE

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OBJECTIVE: Asthma is a very common disease, affecting approximately 5 percent of the adult population in the United States. Beyond the U.S., the prevalence of asthma has considerably increased among other industrialized countries, by more than 30% over the last 2 decades. Given this, it follows that the impact of asthma on labor is a significant concern and it becomes important to assess asthma-related losses in productivity. The objective of this study was to determine the indirect costs due to asthma. **METHODS:** Retrospective analysis was conducted of the 1999 Medical Expenditure Panel Survey. The survey collected data from a nationally representative sample of 24,618 respondents and data from respondents' medical care and health insurance providers and employers. Data elements used in this study included medical conditions and employment information comprised of hourly earnings, hours worked, and disability days. Asthma patients who incurred disability days related to their condition were identified using Interna-