Ipratropium, a short-acting anticholinergic bronchodilator, is frequently prescribed for the maintenance treatment of COPD. Tiotropium is a new, once-daily bronchodilator.

**OBJECTIVE:** To compare the costs and consequences of tiotropium versus ipratropium in COPD patients with a FEV1 65% of predicted normal.

**METHODS:** The cost-consequence analysis was part of a one-year, randomized, controlled, double-blind clinical trial in the Netherlands and Belgium. Consequences were expressed as the number of COPD exacerbations, the number of patients with a minimal clinically relevant improvement in the St. George’s Respiratory Questionnaire (SGRQ), and the number of effectively treated patients. A societal perspective was adopted when calculating COPD-related direct health-care costs. Multiple imputation (SOLAS) was used to impute all missing data.

**RESULTS:** Tiotropium was associated with a 27% reduction in exacerbations (p = 0.03). The number of patients with a clinically relevant improvement in SGRQ after one year of treatment was 16% higher in tiotropium (p < .001). The proportion of effectively treated patients was 21% higher (p < .001). Across all categories, healthcare resource use was consistently lower for tiotropium than for ipratropium. There was a 47% reduction (p = 0.07) in the number of hospital admissions and a 36% reduction (p = 0.03) in the number of unscheduled visits to physicians and other caregivers. The use of concomitant medication was comparable in both groups. COPD-related health-care costs were estimated to be Euro 1310 in ipratropium and Euro 1065 in tiotropium. Hence, annual savings were estimated to be Euro 245 with a 95% CI ranging from −656 to +167. This estimate excludes the costs of the study medications, since the price of tiotropium still has to be set.

**CONCLUSION:** This cost-consequence analysis favors the new once daily bronchodilator tiotropium over ipratropium on all relevant outcome measures.

**PRP5**

**ESTIMATES OF LOST PRODUCTIVE WORK TIME ASSOCIATED WITH ALLERGIC RHINITIS (AR)**

Ricci J, Stewart WF, Leotta CR, Chee E

AdvancePCS, Hunt Valley, MD, USA

**OBJECTIVE:** To determine if lost productive work time differed between individuals with and without AR symptoms and by severity of AR symptoms. Work loss was evaluated as: a) missed workdays; b) missed hours, and c) reduced productivity on days at work while not feeling well.

**METHODS:** Three different phone interviews were developed to quantify illness-related work loss. Version 1 (V1) included a lengthy direct assessment of work loss. Version 2 (V2) was an abridged version of V1. Version 3 (V3) included a brief indirect assessment of work loss. Two different recall periods, at one week and at four weeks, were used for each version of the interview. A convenience sample (n = 20,088) of adult residents from the Baltimore, MD and Chicago, IL areas was contacted by phone, of whom 7,691 met occupation eligibility criteria. The interview included health questions to screen for AR symptoms and to determine AR severity.

**RESULTS:** The dominant source of health-related work loss among all respondents was in total hours of reduced productive work time on days at work when not feeling well, rather than missed full days of work. We compared individuals with AR symptoms (n = 1,596) to controls without AR symptoms on the basis of estimates of total hours of lost productive work time per week by interview version. AR cases reported significantly more lost productive work hours per week than controls. The observed differences between cases and controls per week were 1.8 hours (V1), 2.1 hours (V2), and 3.1 hours (V3) (p < .05). Among moderate-to-severe AR cases, the observed differences per week increased to 4.4 hours (V1), 5.7 hours (V2), and 6.5 hours (V3).

**CONCLUSION:** Individuals with AR symptoms reported significantly more lost productive time at work on days at work when not feeling well than controls. Hours of lost productive work time per week increased with increased severity of AR symptoms.

**PRP6**

**ASMACARE STUDY: ASSESSMENT OF THE IMPACT OF AN INTERVENTION DESIGNED TO IMPROVE THE MANAGEMENT OF ASTHMA PATIENTS**

Espinosa C1, Plaza V2, Molina J3, Ignacio J4, Garcia-Alonso F5, Cobos A6

1Novartis Farmaceutica, Barcelona, Spain; 2Hospital de Sant Pau Barcelona, Barcelona, Spain; 3C.S. Francia, Fuenlabrada, Madrid, Spain; 4Hospital General Basico Serania, Ronda, Malaga, Spain; 5Ministerio de Sanidad y Consumo, Madrid, Spain; 6RDES-Remote Data Entry System, Barcelona, Spain

**OBJECTIVES:** To assess the impact of an intervention helping physicians in the management of asthma patients (APs).

**METHODS:** A program was designed to help physicians in the management of APs that includes an education program (EP) and a computer application (CA) advising on therapeutic decisions. The EP was devoted to teach patients to distinguish worsening symptoms requiring a hospital emergency visit from those that could be self-managed, and to ensure correct self-administration/self-control of therapy. The CA implements the Spanish recommendations for the management of APs that physicians may follow at their discretion. A naturalistic, controlled, cluster-randomized study was designed to assess the long-term (one-year) impact of the intervention on health-related quality of life as measured by the St. George’s Respiratory Questionnaire (SGRQ), on direct and indirect costs, and on satisfaction and clinical outcomes. We also assessed physicians’ adherence to the recommendations. Twenty-two physicians (11 GPs, 11 pne-