mologists) were randomly assigned to either intervention (I) or control (C = standard practice) groups, and were expected to enroll 10 adult patients with persistent asthma (ATS criteria).

RESULTS: Two physicians withdrew after randomization (I:1, C:1) but before starting recruitment. A total of 200 patients (I:100, C:100) were recruited and 173 completed the study (C:86, I:87). The ITT analysis showed a greater reduction of SGRQ values in group I that was significant at the 5% level or marginally non-significant (p = 0.06) depending on the method of analysis, but always clinically significant. Resource consumption and some clinical variables (such as the number of symptom-free days and nights) favored group I (p < 0.05). The recommendations were adopted in about 63% of the cases but this seemed to depend on disease severity.

CONCLUSIONS: The intervention improved QoL, clinical outcomes and resource consumption. The Spanish recommendations for the management of APs should be revised for severe cases.

**COST-EFFECTIVENESS ANALYSIS OF SEQUENTIAL TREATMENT WITH ALMITRINE BISMESYLATE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE**

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OBJECTIVE: The aim of the study was to assess the cost-effectiveness of almitrine in the treatment of severe, chronic obstructive pulmonary disease.

METHODS: A retrospective approach was applied. Both costs and consequences of the therapy in two groups of patients, almitrine group and placebo group, were assessed. The pharmacoeconomic analysis was based on the results of a clinical trial entitled “Effects of sequential administration of almitrine bismesylate (100mg per day per os) in 120 patients with chronic obstructive pulmonary disease. One year, double blind study versus placebo”. The effectiveness of the therapies was exemplified by significant changes in arterial oxygen partial pressure (PaO2). The differences on Visual Analogue Scale for dyspnoea were also measured. Results of the trial demonstrated significant improvement in PaO2 during 12-months of treatment with almitrine compared to placebo. Direct medical costs of pharmaceutical treatment, hospitalizations, additional examinations and oxygen therapy were identified and calculated. The societal and third-party-payer perspectives were applied.

RESULTS: The total cost per patient per year in the almitrine group amounted to 2,656 PLN and was 27 PLN lower than for the placebo group. The most important difference in cost components concerned costs of hospitalizations and oxygen therapy, which were 47.4% and 34.5% lower in almitrine group (calculations made from societal perspective). Results of simulation assuming possibility of partial, subtotal or total reimbursement determined that savings due to this procedure might vary from 93 PLN per patient per year in the case of total reimbursement to 531 PLN per patient per year in the case of 50% reimbursement.

CONCLUSION: Cost calculations together with clinical results determined that treatment with almitrine is a cost-effective alternative, which leads to clinical improvement and constitutes effective use of resources both from the broad societal perspective and also from the third-party-payer perspective.

**LIFETIME COSTS OF COPD IN THE NETHERLANDS**

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OBJECTIVES: Chronic Obstructive Pulmonary Disease (COPD) causes great disability, primarily among the elderly. A Dutch cost-of-illness study estimated the yearly cost of care for an average patient to be Fl 1800 in 1993. The purpose of this paper is to compute the lifetime cost of COPD and to evaluate the contribution of medication, hospital, and other types of care to this cost.

METHODS: The average life expectancy of a new COPD patient was computed with a dynamic lifetable model for the Netherlands. The model accounts for competing death risks from other smoking-related diseases. Resource use and costs for three age groups and nine types of care came from large representative registries. Sensitivity analyses were performed a/o., for the cost of a day in hospital and for medication costs.

RESULTS: Male COPD patients diagnosed at age 45 and 65 have a life expectancy that is almost six and more than two years less than the average life expectancy at these ages. Expected lifetime costs for COPD are between DFL 460 000 and 570 000 for men and women diagnosed at age 45. New patients at age 65 have lower costs: between DFL 81 000 and 110 000 for men and DFL 102 000 and 152 000 for women. A large decrease in life expectancy that differs for men and women explains the reduction. Lower boundaries use minimum estimates for the price of a hospital day and upper boundaries use high estimates. Hospital and medication costs together contribute to more than 80% of total lifetime cost. The contribution of medication costs to the expected lifetime cost decreases with age at diagnosis from 45% to 30%.

CONCLUSION: The lifetime cost reflects the importance of hospital costs and medication costs to the total cost of COPD. It is known that the number of COPD patients will increase in the near future. The results of this work may help understand the increasing health-care needs of these patients.