

TURUN YLIOPISTO  
Lääketieteellinen tiedekunta

HIRVONEN, EVELIINA: Consistency and reliability of smoking related variables:  
longitudinal study design in Asthma and COPD

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Smoking is considered one of the major public health threats in the world. Tobacco has a significant impact on the development of various diseases. When assessing the risk of the onset and progression of these diseases, it is crucial to know the history of the patient's tobacco consumption. Smoking history is also an essential variable in health related epidemiological studies. In this study we aimed to examine the overall success rate of a longitudinal questionnaire based follow-up study among elderly asthma and COPD patients and to estimate the consistency and reliability of repeated standardized questions on current, former and never smokers among adult asthma and COPD patients over eight years.

The study based on the Finnish Chronic obstructive Airway disease (CAD) cohort, which originally comprised of 2390 asthma and COPD patients. Almost identical follow-up questionnaires were sent to the participants one year after the first visit and thereafter every other year. Here we have analysed the general data and smoking related questions from year 1, 2, 4, 6, and 8.

In the present study we followed eight years by mailed questionnaires a cohort of asthma and COPD patients. During the years we observed relatively high, but gradually decreasing response rates (starting from 97% and decreasing to the level of 72%). As expected the mortality rates of the COPD (33.0%) and the asthma-COPD overlap (28.0%) groups were remarkably higher than those in asthma (5.5%) which is not usually a progressive disease. Response rates were significantly better among asthma patients than COPD groups over time even though deaths were taken into account. The COPD and the asthma-COPD overlap groups had significantly more pack years, current and former smokers, and heavy smokers compared to those the asthma group. In the longitudinal analysis, the great majority of these elderly participants (82.7%) had a stable smoking status throughout the study while 13.8% were fluctuating between current and former smoker, and only 3.4% claimed to be never smoker after first reporting to be current or ex-smoker. The most common reason to withdraw from the study was poor health condition