Age- and sex-specific prevalence of chronic comorbidity in adult patients with asthma: a real-life study in general practice

Mathijs Veenendaal[1], Janine Westerik[1], Lisette van den Bemt[1], Janwillem Kocks[2], Erik Bischoff[1], Tjard Schermer[1]
[1]Department of Primary and Community Care, Radboud University Medical Center, Nijmegen, the Netherlands, [2]Department of General Practice and Elderly Care Medicine, University Medical Center Groningen, Groningen, the Netherlands

Aim: We aimed to determine age- and sex-specific prevalence estimates of the full range of chronic comorbid diseases in adults with asthma in general practice.

Method: Retrospective cohort study based on 32,787 electronic medical records of patients aged ≥16 years with asthma from 179 general practices in the Netherlands. Age- and sex-specific prevalence estimates of 76 chronic comorbidities in 14 disease categories based on International Classification of Primary Care (ICPC) codes were analysed.

Results: Chronic comorbidity was present in 65.3% of male and 72.8% of female asthma patients, with female patients having a higher mean (SD) of 2.0 (2.1) chronic comorbid diseases compared to male patients (mean±SD; 1.7±2.0). This mean±SD rose to 5.0±2.7 diseases in the 75+ age group. Most prevalent comorbid conditions were hypertension (20.1%), osteoarthritis (11.5%), eczema (11.5%) and dyspepsia (10.7%). Compared to males, female asthma patients showed higher odds for presence of comorbid disease in eight disease categories. Neurological (Odds ratio [OR]; 95% confidence interval: 2.01; 1.76-2.29), bloodforming/lymphatics (OR 1.83; 1.38-2.42) and musculoskeletal diseases (OR 1.82; 1.69-1.95) showed the highest association with female sex. Females had lower odds of having pulmonary cancer (OR 0.59; 0.42-0.84), urogenital diseases (OR 0.82; 0.75-0.89) and eye/ear diseases (OR 0.89; 0.82-0.97).

Conclusion: Chronic comorbidity is highly prevalent in adults with asthma, even more in women than in men. The odds of having a specific comorbidity may differ between the sexes. This knowledge may help general practitioners to manage and determine the role of comorbidity in a specific asthma patient, which may lead to better asthma outcomes and a more patient-centered treatment.

Declaration of Interest: The authors declare that they have no competing interests. GlaxoSmithKline funded the study with a research grant.