

Dissertation presented at Uppsala University to be publicly examined in Rudbeckssalen, Rudbecklaboratoriet, Dag Hammarskölds väg 20, Uppsala, Friday, November 21, 2008 at 13:15 for the degree of Doctor of Philosophy (Faculty of Medicine). The examination will be conducted in Swedish.

### **Abstract**

Stållberg, B. 2008. Asthma in Primary Care. Severity, Treatment and Level of Control. Acta Universitatis Upsaliensis. *Digital Comprehensive Summaries of Uppsala Dissertations from the Faculty of Medicine* 390. 76 pp. Uppsala. ISBN 978-91-554-7315-0.

**Aims.** The overall aim was to examine the severity, treatment and level of control in patients with asthma in primary care in Sweden. The specific aims were to assess what matters to asthma patients, evaluate symptoms, medication and identify factors related to asthma severity, compare the extent of asthma control in 2001 and 2005, and investigate the development of asthma and degree of asthma control in adolescents and young adults who had reported asthma six years earlier.

**Methods.** The first study was a telephone interview of a representative sample of Swedish asthmatics. In the second study a random sample of 1,136 patients answered two questionnaires. A classification of the asthma severity similar to that in the GINA guidelines was made. In the third study two surveys were performed, in 2001 and in 2005, with a random sample of 1,012 and 224 asthma patients, respectively, and a classification of asthma control similar to the recent GINA guidelines was made. In the fourth study 71 individuals who reported physician-diagnosed asthma in a population-based survey in 1997 and were defined as current asthmatics, were reinvestigated in 2003 with a skin prick test, methacholine challenge test, eucapnic voluntary hyperventilation test and measurement of exhaled nitric oxide.

**Results.** Common situations causing symptoms of asthma were physical exertion and contact with pets. Nocturnal symptoms were frequent. In primary care 35% of the women and 24% of the men were classified as having severe asthma. Female sex, increasing age, not filling the asthma prescription owing to cost, daily smoking, and pollen allergy increased the odds of having severe asthma. In 2001, 37% had achieved asthma control, as compared with 40% in 2005. Uncontrolled asthma was more common in women and smokers. In the 2003 study of adolescents and young adults with asthma six years earlier, the definition of current asthma was fulfilled by 50 of the 71 subjects and one third had achieved asthma control.

**Conclusions.** The majority of the asthmatics reported a large number of symptoms and limitations in their daily living. Many asthma patients in primary care have insufficient asthma control. One reason for lack of control might be undertreatment with inhaled corticosteroids.

**Keywords:** Adherence, adolescent, adult, asthma, asthma classification, asthma control, asthma severity, compliance, drug therapy, hyperresponsiveness, primary health care, smoking, asthma treatment.

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