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IMPACT OF UNCONTROLLED PEDIATRIC ASTHMA ON CHILD AND CAREGIVER PRODUCTIVITYDean BB¹, Calimlim B¹, Aguilar D¹, Sacco P², Maykut R², Tinkelman D³¹Cerner LifeSciences, Beverly Hills, CA, USA, ²Novartis Pharmaceuticals Corporation, East Hanover, NJ, USA, ³National Jewish Medical and Research Center, Denver, CO, USA

OBJECTIVE: To assess productivity among children with uncontrolled asthma (UA) and their caregivers. **METHODS:** An internet-based survey was administered to caregivers of children aged 6–12 years with moderate to severe asthma (severity and control based on NAEP guidelines). The caregiver questionnaire assessed pediatric asthma symptoms, activity limitation, social functioning, and school attendance. Caregiver productivity was assessed using the Work Productivity and Activity Impairment (WPAI) Questionnaire. WPAI measures were calculated with higher scores representing greater percent reduction in productivity. The chi-square test was used to assess differences in proportions for school impairment between children with UA versus controlled asthma (CA), and the two-sample t-test was used to assess differences in the child's absenteeism and caregiver's WPAI measures. **RESULTS:** A total of 473 caregivers completed the survey; 360 were caregivers of children with UA and 113 for children with CA. Compared with CA, children with UA had significantly greater absenteeism (5.5 days vs. 2.2 days, $P < 0.001$) during the previous year and were significantly more likely to miss school-related activities or visit the health office/school nurse ($P < 0.001$ for both). Caregivers of children with UA reported significantly more absenteeism (15.4% vs. 7.8%, $P = 0.03$), impairment while working (20.8% vs. 13.4%, $P = 0.0001$), greater overall work productivity loss (25.5% vs. 16.0%, $P = 0.0001$), and significantly greater activity impairment (23.6% vs. 11.2%, $P = 0.0001$). **CONCLUSION:** Uncontrolled asthma was associated with significant reduction in school attendance and increased need for health services while at school and impacted the caregiver's work productivity. Funded by Genentech, Inc. and Novartis Pharmaceuticals Corporation.

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IMPACT OF UNCONTROLLED ASTHMA ON PRODUCTIVITY AND ACTIVITY IMPAIRMENTWilliams S¹, Wagner S¹, Kannan H²¹AstraZeneca, Wilmington, DE, USA, ²Consumer Health Sciences, Princeton, NJ, USA

OBJECTIVE: Asthma is a chronic debilitating condition. The lack of asthma control may impact patients' daily activities including work productivity. The current study evaluated the impact of uncontrolled asthma, as measured by the Asthma Control Test (ACT), on work productivity/activity impairment in a sample of US asthma patients. **METHODS:** Data from United States 2006 National Health and Wellness Survey (NHWS), a nationally representative Internet survey of patients' (≥ 18 years) self-reported health status, health care attitudes, resource utilization, work productivity and activity impairment were used. The current analysis included subjects with self-reported diagnosis of asthma. Asthma control was categorized by ACT score: uncontrolled, ≤ 19 ; controlled, ≥ 20 . The Work Productivity and Activity Impairment (WPAI) Questionnaire, a validated scale was used to measure absenteeism (ie, work time missed) and presenteeism (ie, impairment at work or reduced on-the-job effectiveness). Analyses of work productivity loss were limited to those who were employed full-time. Linear regression models were used to control for potential confounders and determine the impact of asthma control on productivity. **RESULTS:** Of 62,833

NHWS respondents, 4.42% had uncontrolled asthma and 4.65% had controlled asthma. In bivariate analyses, significant differences were noted for demographic variables, as well as for measures of work productivity and activity impairment between those with controlled asthma and those with uncontrolled asthma. Those with uncontrolled asthma were significantly more likely to be older, less educated and not married ($p < .001$) vs. those with controlled asthma. After controlling for confounders, those with controlled asthma reported lower levels of absenteeism ($B = -4.055$, $p < 0.001$), presenteeism ($B = -13.287$, $p < 0.001$) overall work productivity loss ($B = -10.818$, $p < 0.001$), and activity impairment ($B = -16.423$, $p < 0.001$). **CONCLUSION:** The extent of asthma control can have a significant impact on work productivity, including presenteeism and absenteeism. Improvement in the level of asthma control is likely to reduce the burden of asthma to employers.

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TREATMENT SATISFACTION QUESTIONNAIRES IN ASTHMA AND OTHER CHRONIC DISEASESStaniek V¹, Emery MP¹, Marrel A², Dias-Barbosa C², Williams A³¹Mapi Research Trust, Lyon, France, ²Mapi Values, Lyon, France,³GlaxoSmithKline R&D, Uxbridge, UK

OBJECTIVE: To have a better understanding of the concept of treatment satisfaction in the context of asthma and other chronic diseases. To identify and review the content of existing treatment satisfaction questionnaires and search for any evidence of a link between satisfaction and other outcomes. **METHODS:** A literature review was conducted using MEDLINE (1996–2006), EMBASE (1996–2006), abstracts from scientific conferences (ERS since 2003, ISOQOL since 2004) and the Mapi Research Trust databases. Articles on the concept of treatment satisfaction were reviewed. Studies and randomized clinical trials describing the development or use of instruments assessing treatment satisfaction were selected for analysis. **RESULTS:** Treatment satisfaction is a well-defined concept that applies to the evaluation of health care and treatment. Treatment satisfaction questionnaires specific to asthma ($n = 14$), different chronic diseases ($n = 13$) and generic satisfaction questionnaires ($n = 3$) were identified. Asthma specific questionnaires included 1 to 40 items and covered 24 specific domains. The domain on “treatment characteristics and inhaler features” was the most widely covered with 51 items, followed by the domains on “effectiveness” and “discomfort” of treatment with 24 and 16 items, respectively. The analysis of clinical trials suggested potential links between 1) satisfaction and compliance, and 2) satisfaction and intention to continue the treatment. Empirical data showed that a satisfaction assessment could be used to differentiate products when used appropriately. **CONCLUSION:** Future objectives of clinical studies could include the 1) identification of the features of treatment that contribute most to treatment satisfaction; 2) comparison of satisfaction levels between treatments; and 3) investigation of the relationship between satisfaction and compliance or between multi-health outcomes such as Health-Related Quality of Life, symptoms and satisfaction. The information obtained from such studies could then be used to differentiate between products, to adapt treatment strategies and to therefore improve the overall management of asthma patients.