Asthma Symptoms and Health Care Resource Utilization by Level of Asthma Control in Patients Adherent to ICS/LABA Treatment

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The MMAS requires patients to provide responses to 8 items related to adherence, on a pre-coded 5-point response scale. Patients are asked to rate the degree to which asthma affected productivity and impaired activities on a 0-10 scale. The maximum sample available was used for each descriptive variable. Results are presented as n (%) or mean (SD).

### Study population
- Of the 2511 patients in the present dataset, 413 patients from 243 practices met inclusion criteria and were included in the analysis. 153 patients were excluded because they did not complete the questionnaire.
- Half (61.0%) of patients self-assessed (via the ACT) as well-controlled. 32.3% of patients self-assessed (via the ACT) as not well-controlled.
- The majority (73.0%) of very poorly controlled patients reported using their prescribed treatment, total daily ICS dosage, and level of treatment adherence by at least 90% at least once a week.
- The burden of asthma reported in very poorly controlled patients was higher (31.8%) compared with those with not well- and well-controlled asthma, respectively (Figure 3).

### Analysis of exacerbation and resource utilization
- The average number of exacerbations in last 12 months were 2.3, 1.5 and 0.7, for patients very poorly-, not well- and well-controlled asthma, respectively.
- The majority (73.0%) of very poorly controlled patients reported using their prescribed treatment, total daily ICS dosage, and level of treatment adherence by at least 90% at least once a week.
- The burden of asthma reported in very poorly controlled patients was higher (31.8%) compared with those with not well- and well-controlled asthma, respectively (Figure 3).
- In addition, activity impairment for patients with very poorly controlled asthma was higher (59.9%), almost double the level of impairment observed for patients with not well- and well-controlled asthma, respectively.

### Conclusions
- The burden of asthma in very poorly controlled patients was substantially greater than in patients with not well- or well-controlled asthma and may indicate increased future risk of exacerbations.
- Ongoing research is necessary to better understand all the factors contributing to poorly controlled asthma, potentially including identification of novel treatment strategies for patients who do not respond to ICS/LABA/FDTC treatment, even in a medium or high daily dosage levels.

### Limitations
- Measurement error: As is somewhat known in the physical therapy and therefore may not reflect all aspects of 12 month treatment.
- Measurement error: The study did not influence the original survey through either contribution to the design of the survey or through solicitation of patients from the physicians who participated in the survey.
- The study only includes findings from patients aged 12 years and older participating in a comprehensive asthma management program at one of three academic medical centers.

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### References