

Association of Asthma Educators 2019 Poster Abstract Submission Page (DATA)

Title: ASTHMA CONTROL TEST SCORES CORRELATE WITH HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH ASTHMA

Authors: Karthik Ramakrishnan,¹ Lulu K. Lee,² Guilherme Safioli,³ Michael Schatz⁴

¹Teva Pharmaceutical Industries, Frazer, PA, USA; ²Health Outcomes Practice, Kantar Health, San Mateo, CA, USA; ³Teva Pharmaceutical Industries, Amsterdam, Netherlands; ⁴Department of Allergy and Research and Evaluation, Kaiser Permanente Southern California Region, San Diego and Pasadena, CA, USA

Background: The Asthma Control Test (ACT) is a widely-used, validated questionnaire for assessment of asthma control. The relationship between ACT and health-related quality of life (HRQoL) requires additional assessment.

The study objective was to assess the association between asthma control, as measured by ACT scores, and HRQoL in adult patients with asthma.

Methods: Data from the 2015–2016 U.S. National Health and Wellness Survey, a self-administered, internet-based questionnaire, were used to identify respondents aged ≥ 18 years with a self-reported physician diagnosis of asthma. Patients were grouped by ACT score (≤ 15 : poorly-controlled; 16–19: partly-controlled; 20–25: well-controlled asthma). HRQoL was assessed using standard validated questionnaires: SF-36v2 metrics (SF-6D health utilities, mental component summary [MCS], physical component summary [PCS], and sub-domain scores) and EQ-5D-5L index score. Generalized linear models examined the association between HRQoL and ACT score, adjusting for patient characteristics

Results: Overall, 1,360, 1,572, and 4,888 patients had ACT ≤ 15 , 16–19 and 20–25, respectively. ACT=20–25 patients had higher adjusted mean EQ-5D-5L index scores (0.81) versus ACT=16–19/ ≤ 15 (0.76/0.71). Adjusted SF-36 scores (MCS; PCS; SF-6D health utilities) were higher for ACT=20–25 (46.08; 49.41; 0.70) versus ACT=16–19 (42.61; 45.91; 0.65) and ACT ≤ 15 (39.99; 43.30; 0.61). A similar pattern was found for the SF-36 mental and physical sub-domain scores. Adjusted HRQoL differences for ACT=20–25 versus ACT=16–19/ ≤ 15 exceeded the Minimal Important Difference (MID) for SF-36 MCS and PCS (MID=3 each) and SF-6D health utilities index (MID=0.041). Mean differences in scores for ACT=20–25 versus ACT ≤ 15 exceeded the MID for EQ-5D-5L index (MID=0.07). All results were significant at $p < 0.001$.

Conclusion: In this study, higher ACT scores correlated with higher HRQoL. Incremental improvements in ACT scores could confer HRQoL benefits for asthma patients.

Guilherme Safioli is an employee of Teva Pharmaceuticals and may be a Teva stockholder. Karthik Ramakrishnan was an employee of Teva Pharmaceuticals at the time of the study. Lulu Lee is an employee of Kantar Health, which received funding from Teva Pharmaceuticals for the purposes of this

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