Impact of nighttime and early morning symptoms on HRQoL and work productivity of COPD patients

Sean 17458 Sullivan sdsull@u.washington.edu ¹, Judith 17459 Stephenson JStephenson@healthcore.com ², Qian 17460 Cai CCai@healthcore.com ², Hiangkiat 17461 Tan JTan@healthcore.com ², Abhishek 17462 Kavati kavatiabhishek5@gmail.com ², Michelle 17463 Mocarski Michelle.Mocarski@frx.com ³ and Jalpa 17478 Doshi j.a.doshi@gmail.com ⁴. ¹ Department of Pharmacy, University of Washington, Seattle, WA, United States ; ² HealthCore, Inc., Wilmington, DE, United States ; ³ Health Economics & Outcomes Research, Forest Research Institute, Inc., Jersey City, NJ, United States and ⁴ Health Services Research Unit, University of Pennsylvania, Philadelphia, PA, United States.

INTRODUCTION This study assessed impact of nighttime (NT) and early morning (EM) symptoms on health-related quality of life (HRQoL) and work productivity of employed COPD patients. METHODS Employed patients ≥40 years with ≥1 ICD-9-CM COPD diagnosis code medical claim or ≥1 COPD maintenance medication pharmacy claim were identified from the HealthCore Integrated Research Database. Respondents completed a survey assessing HRQoL (Short Form-12 version 2 [SF-12v2], COPD Assessment Test [CAT]) and productivity (Work Productivity and Activity Impairment [WPAI] questionnaire); indirect costs were calculated by monetizing WPAI items. Respondents were classified based on NT and/or EM symptom experience in the past week and enrollment was stratified based on NT/EM symptoms. Groups were compared via ANOVA and chi-square. RESULTS Respondents (N=437) reported having both (39.6%), either (33.4%), or neither NT/EM symptoms (27.0%). Compared to respondents without NT/EM symptoms, those with both/either reported worse HRQoL (lower PCS, MCS scores, higher CAT scores; p<0.01). Respondents with both reported significant work productivity loss (3% absenteeism, 21% presenteeism, 22% overall work impairment), and averaged 27% daily activity impairment. Average monetary impact of COPD-related work absenteeism/presenteeism was significantly higher for patients with both symptoms vs those without ($31/week vs $2, p<0.05). CONCLUSIONS COPD patients with NT and/or EM symptoms had lower HRQoL, while those with both reported greater work productivity loss and greater activity impairment vs patients with no symptoms. Improved disease management may lower the economic impact on patients, employers, and the healthcare system.