trol, and patient utility. METHODS: 84 asthmatic subjects completed the AQLQ. Self-rated asthma severity and control was measured on a 5–point Likert scale and utilities were measured using a rating scale. SES was defined based on receipt of social assistance. Correlations between AQLQ scores and each other variable were measured using Spearman’s Rank correlation coefficient ($r_s$). Differences in $r_s$ between social classes ($r_s$diff) were analyzed using Fisher’s r to z transformation (2-tailed). RESULTS: 38 (45%) patients were receiving social assistance. In the entire sample, there was significant correlation ($p < 0.05$) between all AQLQ scores (symptoms, activity, emotion, environment, and global), self-rated asthma severity ($r_s = 0.21–0.38$), control ($r_s = 0.21–0.38$), and utilities. Symptom, activity, and global AQLQ scores were correlated strongly with utility ($r_s = 0.53–0.54$; $p < 0.0001$) and moderately with environment and emotion scores ($r_s = 0.38, p = 0.002$). However, AQLQ scores were consistently more strongly correlated with self-assessed severity and control in lower SES patients. Although $r_s$ diff ranged from 0.07 to 0.55 (mean = 0.27), only the most extreme difference was significant (activity score and control $r_s$ diff = 0.55; $p = 0.01$). Conversely, $r_s$ between all AQLQ scores and utility were consistently lower (mean $r_s$ diff = 0.18; range 0.9–0.23) in patients on social assistance, although not significantly. CONCLUSIONS: Correlations between AQLQ scores and utility were consistently lower in lower SES subjects, suggesting that AQLQ may be a better measure of overall health in higher SES patients. Conversely, AQLQ scores correlated more strongly with self-rated asthma severity and control in lower SES subjects. Although most differences were not significant despite their magnitude, this is likely due to a recognized lack of power of the Fisher’s r to z transformation test.

COMPARISON OF TWO QUALITY OF LIFE INSTRUMENTS IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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OBJECTIVE: The St. George’s Respiratory Questionnaire (SGRQ) has been validated and widely used in assessing health-related quality (HRQL) of life among Chronic Obstructive Pulmonary Disease (COPD) patients but it is complicated to score and can be a burden on respondents when there is limited time. A shorter and more concise instrument, Airways Questionnaire (AQ30), was developed to measure Quality of Life (QoL) of patients with obstructive airways. The AQ20 contains 20 items on the AQ30. The purpose of this study was to evaluate and compare the responsiveness of the AQ20 and the SGRQ questionnaires to measure health-related quality of life of patients with COPD. STUDY DESIGN: Responses from a survey of 1,000 COPD patients participating in a pilot health management program were included in the analysis. A total of 181 COPD patients completed the AQ20 and the SGRQ. Spearman’s Rank correlation was used to determine if the AQ20 and the SGRQ scores for symptoms, activity and impact and the overall score were correlated. A high correlation suggests that both surveys are capturing the same information. RESULTS: Scores for both AQ20 and the SGRQ were available for 181 cases. The correlation between the AQ20 and the symptoms component scores was 0.67 ($p < 0.05$). Correlation between the AQ20 and the activity component was 0.69 ($p < 0.05$) and the AQ20 and the impact component was 0.79 ($p < 0.05$). The correlation between the AQ20 and the total SGRQ was 0.82 ($p < 0.05$). CONCLUSION: The AQ20 appears to have similar properties and responsiveness that are similar to complex questionnaires such as the SGRQ. Because it is short and easy to administer the AQ20 may be useful in settings with limited time for HRQL assessments.
the direct treatment of respiratory infections, but also for the treatment of co-morbid medical conditions of respiratory infections patients. These costs also vary considerably by type of respiratory infection. The study also shows that respiratory infections impose substantial indirect costs on employers from work loss associated with these infections.

OBJECTIVES: To examine the relationship between self-reported health status, prophylactic medication utilization, and health care service utilization in older adults with asthma. METHODS: Design: A prospective longitudinal cohort study was conducted over a 2-year post-enrollment period in a population of managed care enrolled asthmatic older adults. Participants completed a comprehensive health risk screen at time of enrollment in the plan. Setting: A Medicare HMO in the Southeastern United States with prescription benefit. Participants: A total of 129 Medicare-HMO enrolled older adults with asthma using inhaled corticosteroid therapy as prophylaxis were available for complete follow up. Measurements: We measured self-reported health perception, falls, lifestyle, depressive symptomatology, and pre-enrollment health care service use using a comprehensive risk screen. We used the medication possession ratio and total annual health care charges as measures of post-enrollment inhaled corticosteroid and health care service use. RESULTS: After adjusting for the effects of other variables we found that depressive symptomatology (DS) at baseline and increased comorbidity severity (using the Charlson comorbidity index) were associated with significant reductions in prophylactic medication possession (27% with DS, and 6% with unit increase in Charlson’s index, \( p < 0.05 \)). Additionally we found, after adjusting for the effects of baseline health status, a 10% increase in prophylactic medication possession was associated with a 5% decrease in total annual health care charges in this population (\( p < 0.05 \)). CONCLUSIONS: There seem to be strong associations between poor health status at time of enrollment, decreased post-enrollment prophylactic medication use and increased post-enrollment health care service utilization in older adults with asthma.

OBJECTIVES: The purpose of this study is to adapt a previously validated questionnaire to a pharmacy claims database and examine its construct validity in measuring severity of illness in chronic respiratory disease (CRD). METHODS: The authors modified an asthma severity of illness questionnaire (13 items, total score range 0–28) based upon symptoms, medication use, hospitalization information and intubation history to a scale that is more conducive to retrospective data analysis. The adapted CRD scale (CRDS) was based on pharmacy claims data and hospitalization history (11 items, total score range 0–18). The CRDS was compared to utility as measured by a general health visual analogue scale and quality of life (QoL) as measured by the Physical Component Scale (PCS), Physical Function (PF) and General Health (GH) domains of the SF-36. Panel data analysis was performed on pharmacy claims and survey data from the Kaiser Permanente/USC Consultation Study. QoL and utility were regressed on the CRDS, along with covariates. A non-respiratory chronic disease score was used to control for chronic disease while avoiding significant multicollinearity. The analysis was limited to 126 patients with CRD followed over 3 years. The Hausman specification test was used to determine the appropriateness of the random-effects model formulation. RESULTS: The Hausman specification test suggested the use of the fixed-effects formulation for utility (\( m = 8.2, p > m = 0.0420 \)). The CRDS was negative and significant (\( -1.79, p < 0.0286 \)). The Hausman test suggested a fixed-effects formulation for PCS (\( p > m = 0.0333 \)) and random-effects for GH (\( p > m = 0.0628 \)) and PF (\( p > m = 0.1495 \)). The CRDS was significant and negative for all three QoL domains: (PCS: \( -0.68, p < 0.0085 \); PF: \( -0.97, p < 0.0130 \); GH: \( -0.065, p < 0.0077 \)). CONCLUSION: The adaptation of the asthma severity of illness questionnaire appears to be a valid measure of chronic respiratory disease in a pharmacy claims database.

OBJECTIVES: Adult patients with moderate to severe asthma could potentially avoid utilizing excessive health care resources by reducing the need for management of severe adverse effects associated with albuterol. This modeled analysis was performed from a managed care payer perspective to determine if nebulized levalbuterol is associated with a lower cost per decreased use of rescue inhalers, as compared with nebulized racemic albuterol over a four week period. METHODS: Cost data was obtained from a public hospital, an HMO, and the Red Book. Costs were measured in 2000 US dollars. Probabilities were derived from a clinical controlled trial and the National Center for Health Statistics. The primary out-