**Factors Affecting Adherence to COPD Therapy in SEU**

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**Abstract**

**Objectives**: To examine correlates of non-adherence to drug therapy among COPD patients in SEU.

**Methods**: The study included data from the 2011 SEU (N=67,512) National Health and Wellness Survey, a survey representative of the adult populations in France, Germany, Italy, Spain, and UK. Respondents self-reported physician diagnosis of COPD, chronic bronchitis, or emphysema and indicated they were currently taking a prescription regimen for any of these conditions. Adherence was measured using the Morisky Adherence Scale. Tests of cross and chi-square tests were used to assess differences between adherent and non-adherent patients. A binary logistic regression model was used to determine patient characteristics independently associated with non-adherence. Sex, age, smoking, alcohol use, Charlson Comorbidity Index (CCI), out-of-pocket costs for prescriptions, use of cost saving strategies (CSS), self-reported COPD severity, employment, income, number of comorbid conditions, and country were included as predictors.

**Results**: Of 1,263 respondents using a COPD medication, 43% (n=539) reported at least some non-adherence. Bivariate comparisons revealed that non-adherent patients were more likely to smoke and use CSS than adherent patients (47% vs. 34% and 48% vs. 28%, respectively; p<0.001). Adherent patients were older (59.5 vs. 51.8) and experienced more severe COPD (19% vs. 9%; p<0.001). In the regression model, age (OR= 1.02, 95% CI: 1.01, 1.03; p<0.001) and severity of COPD (3.72 vs. moderate COPD: 1.5, 95% CI: 1.18, 1.20; OR for severe COPD: 2.49, 95% CI: 1.65, 3.75) were positively associated with adherence (p<0.01), while smoking (OR=0.79, 95% CI: 0.60, 0.99) and use of CSS (OR= 0.59, 95% CI: 0.45, 0.77) had negative associations (p<0.01). No other variables in the model were associated with adherence.

**Conclusions**: The median age and severe COPD were associated with increased adherence, while smoking and CSS were associated with decreased adherence. Physicians need to target their younger, less severe COPD patients to encourage greater adherence to therapy.

**Note**: Numbers differ from published abstract due to further analysis.

**Further Introduction**

The incidence of Chronic Obstructive Pulmonary Disease (COPD) is rising; the World Health Organization estimates that COPD will become the third leading cause of death worldwide by 2020.

COPD treatments are poorly adhered to, which can result in tremendous direct and indirect costs, as well as inferior patient outcomes. To improve adherence, researchers have examined the correlates of non-adherence among COPD patients in SEU. However, this is the first study to determine patient characteristics independently associated with non-adherence in SEU.

**Introduction**

Adherence was defined as answering in the positive to any of these behaviors.

Patients self-reported demographics including sex, employment, and income as well as health habits including drinking alcohol, smoking cigarettes, and exercising.

The co-morbidity burden was assessed using the self-reported physician diagnosis of various comorbid conditions (heart disease, cancer, asthma) which was calculated by weighing several comorbidities by severity and summing the result.

COPD severity was self-assessed by respondents as mild, moderate, or severe.

Patients reported if they used one or more cost saving strategies (CSS) with regard to their Rxs and using an on for any of those three conditions.

**Methods**

**Data Source**

Data were taken from the SEU (France, Germany, Italy, Spain, and UK) 2011 National Health and Wellness Survey, a cross-sectional survey representative of the total adult populations in each SEU market. Respondents self-reported physician diagnosis of various medical conditions.

The population of interest, COPD Rx treated patients, was defined using self-reported physician diagnosis of COPD, chronic bronchitis, or emphysema (hereafter referred to collectively as COPD) and using an on any of those three conditions.

**Data**

Adherence to COPD Rx therapy differs from published abstract due to further analysis.

**Adherence**

Physicians need to target their younger, less severe COPD patients to encourage greater adherence to therapy.

**Note**: Numbers differ from published abstract due to further analysis.

**Discussion**

COPD Rx treated patients, smoking and using a CSS were associated with significantly greater odds of adherence, while current smoking and use of a CSS were associated with lower odds of adherence (Table 3).

Each year of age added a 3% increase in adjusted odds of adherence (p<0.01) (Table 2).

Moderate COPD was associated with over a 50% increase in adjusted odds of adherence compared to mild COPD (p<0.01), and severe COPD was associated with 2.5 times the adjusted odds of adherence compared to mild COPD (p<0.01).

Smoking was associated with lower adjusted odds of adherence (p<0.001), as was using at least one CSS (p<0.01).

Running Italy was also associated with lower adjusted odds of adherence compared to the other countries (p<0.001).

**Limitations**

Causal inferences cannot be drawn from this data due to its cross-sectional nature.

**Conclusions**

Non-adherence to COPD Rx therapies is SEU is more likely among current smokers and patients who use medication-cost saving strategies. Further investigation is warranted to determine additional interventions addressing these behaviors would improve adherence to COPD treatment regimens.

**References**


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