

medical resource use, impact on productivity for both patients and carers, and detrimental effects on education and careers.

### CONTENT VALIDITY OF TWO SYMPTOM QUESTIONNAIRES FOR IDIOPATHIC PULMONARY FIBROSIS

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OBJECTIVES: Idiopathic Pulmonary Fibrosis (IPF) is a rare, irreversible and eventually fatal fibrosing lung disease. Cough and dyspnea are major symptoms. The study objective was to assess the content validity of the Cough and Sputum Assessment Questionnaire (CASA-Q) cough domains and the UCSD Shortness of Breath Questionnaire (SOBQ), instruments developed for use in chronic obstructive pulmonary disease, when used in patients with IPF. METHODS: Cross-sectional, qualitative study with cognitive interviews in patients with IPF. Study outcomes included relevance, comprehension of item meaning, understanding of the instructions, recall period, response options, and concept saturation. RESULTS: Interviews were conducted with 18 patients. The mean age was 68.9 years (SD 11.9), 78% were male and 89% were Caucasian. The mean time since IPF diagnosis was 2.4 years (SD 1.6). Most participants (89%) found the CASA-Q cough domain items to be highly relevant to their condition. The intended meaning of the items was clearly understood by most of the participants (89-100%). All participants understood the CASA-Q instructions; the correct recall period was reported by 89% of the patients, and the response options were understood by 76%. Most participants (83%) reported positive feedback for the SOBQ; those who did not were symptom free and hence had no limitation in activities to report. The intended meanings of the items were relevant and clearly understood by all participants. Participants understood the instructions (83%) and all patients understood the response options. The recall period produced varying responses, based on the type of activity performed. No concepts were missing, suggesting that saturation was demonstrated for both measures. CONCLUSIONS: Content validity and saturation for the CASA-Q cough domain and SOBQ was established with items perceived as relevant to measure symptoms of IPF. The results of this study support the use of these instruments in IPF clinical trials.

### QUALITY OF LIFE IN PAEDIATRIC ASTHMA FROM PATIENT AND THEIR PARENTS PERSPECTIVE

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OBJECTIVES: To evaluate disease-specific quality of life (QoL) in children with asthma according to patients' and their parents' perspective. METHODS: Hungarian version of the Standardised Paediatric Asthma Quality of Life Questionnaire (PAQLQ(s)) and the Paediatric Asthma Caregiver's Quality of Life Questionnaire (PACQLQ) were completed. The minimal important difference in the PAQLQ total score is 0.5 on the 7-point Likert scale, higher scores indicate better QoL. Asthma control was assessed by Asthma Control Questionnaire (ACQ); Forced Expiratory Volume in 1 second (FEV1) was measured via spirometry. RESULTS: A total of 125 children (7-17 years of age) and their caregivers completed the questionnaires. Overall PAQLQ score was 5.74+0.97, overall PACQLQ score was 5.32+1.22 (r=0.83), mean ACQ score was 1.65+0.8 and mean FEV1 was 100.71+14.91. PACQLQ scores were statistically (p=0.001) and clinically significantly lower, than PAQLQ scores. Correlations between  $FEV_1$  and overall score of  $PAQLQ_{(s)}$  (r=-0.15) and overall PACQLQ score (r=-0.005) were weak and not significant. The association between ACQ and total score of  $PAQLQ_{(s)}(r=-0.64, p=0.01)$  was moderate. **CONCLUSIONS:** Our participants had poor asthma control despite their good lung function. Weak relationship was found between spirometry and QoL according to patients' and caregivers' opinion; however QoL correlated only moderately with the level of asthma control. PAQLQ is able to detect small but clinically important changes that children experience as a result of the treatment or as a part of the natural fluctuation of their asthma, it provides additional valuable information for clinical practice; children aged over 7 can provide reliable data on their Qol, where as parents often do not rate their children's Qol appropriately.

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## TURKISH CULTURAL ADAPTATION AND VALIDATION OF SMOKING CESSATION QUALITY OF LIFE (SCQOL) QUESTIONNAIRE

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OBJECTIVES: The Smoking Cessation Quality of Life (SCQoL) questionnaire assesses the change in well-being and functioning associated with smoking cessation. The SCQoL includes 14 questions. This study aims to adapt the SCQoL into Turkish language and culture and, check the reliability and validity of the inventory culturally. METHODS: The original instrument was forward then back-translated by two independent translators. A small sample consisting of 42 people was used to check the initial comprehension and convenance. Cronbach's Alpha was used to assess reliability and factor analysis to assess dimensionality. The Euro-Qol-5D questionnaire and corresponding Visual Analogue Scales were used for concurrent validity. RESULTS: A total of 152 people participated in this study. 55.9% of them were female, 44.1% of them being male. Mean age was 24.3. The internal consistency coefficient (Cronbach's alpha) of SCQoL was 0.771. Factor analysis of the scale revealed that it was composed of four factors and accounting for 67% of the total variance. Correlations were moderate with EuroQol and VAS. CONCLUSIONS: The culturally adapted to Turkish SCQoL has good validity and

reliability, making it a potentially useful outcome measure in determining the effect of quality of life of people in Turkey.

### PREFERENCE AND WILLINGNESS TO PAY FOR A TREATMENT OF PULMONARY ARTERIAI, HYPERTENSION

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OBJECTIVES: Pulmonary arterial hypertension (PAH) is a chronic, debilitating disease characterized by an increase in blood pressure in the pulmonary arteries and is associated with a burdensome low tolerance to exercise. Treprostinil is indicated in the treatment of PAH in patients with New York Heart Association Class II-IV symptoms and is available in one of two forms: infused or inhaled. The present study determined the preference among members of the general public for one treatment delivery option over the other, as well as the willingness-to-pay (WTP) for the inhaled option. METHODS: An online survey of members of the general public, 18 years of age or older, in the province Ontario, Canada, was conducted by presenting descriptive and clinical information on each treatment delivery option, ascertaining the participants' preference for one option over the other, and, by inviting participants who opted for the inhaled form to take part in a bidding game evaluating their WTP in terms of additional monthly insurance premiums to ensure that inhaled treprostinil would be covered by a hypothetical insurance scheme. Descriptive statistics and sub-group analyses based on demographic characteristics were calculated with regards to preference and WTP. RESULTS: The recruited population was more likely to be female, younger and with a higher yearly household income, when compared to the population of Ontario. Of the 386 survey participants, 85.8% preferred the inhaled treatment option, with no significant differences in terms of preference observed across age or gender. The observed median (minimum, maximum, mode) and mean (95% confidence interval) WTP in monthly insurance premiums were CAD21.50 (CAD0, CAD200, CAD50) and CAD37.25 (CAD32.51, CAD41.99), respectively; sub-group analyses based on gender, age or yearly household income yielded no significant differences. CONCLUSIONS: Inhaled treprostinil appears to be preferred over infused treprostinil and is associated with relatively high WTP for insurance premiums

# RESPIRATORY-RELATED DISORDERS - Health Care Use & Policy Studies

## ARE DISEASE MANAGEMENT PROGRAMS FOR COPD COST-SAVING?

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OBJECTIVES: Pharmaceutical companies are increasingly shifting from a productcentered to a customer and service-centered culture and many companies have developed disease management programs for illnesses like asthma, COPD, diabetes, arthritis, depression etc. Such programs come in all shapes and sizes and their main aim is to improve the quality of care are reduce hospital costs. However, there is insufficient evidence of cost-effectiveness of disease management programs. Aim: The aim of this study is to review the impact of COPD disease management (COPD-DM) programs on health care costs and outcomes. We also investigated the impact of disease-, intervention-, and study-characteristics. METHODS: We conducted a systematic review of cost-effectiveness studies of COPD-DM. The results were grouped by study, intervention and disease characteristics and, where feasible, included in a random-effects meta-analysis. RESULTS: We included 16 papers describing 11 studies. The meta-analysis showed that COPD-DM decreased the RR of hospitalizations (RR: 0.71 [95CI: 0.53-0.96]), and led to a reduction of hospitalization costs (€1093 [95CI: €2052-€133]) and average health care savings were €922 [95CI: €1549-€295] per patient. These savings have to be weighed against the costs of developing, implementing and managing the DM program. There was substantial heterogeneity. DM showed greater savings in hospital costs in studies including severe COPD patients (GOLD stage 3+). Savings were also greater when COPD-DM programs addressed 3 or more components of the Chronic Care Model and in studies from non-EU origin. CONCLUSIONS: DM decreased the risk of hospitalization and health care costs (excluding program costs), but results varied by study-, intervention-, and disease-characteristics. Future studies should more explicitly include the overhead costs of running these DM programs.

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### CHARACTERISTICS AND DETERMINANTS OF PALIVIZUMAB USE IN THE **NETHERLANDS**

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OBJECTIVES: Respiratory Syncytial virus (RSV) is the leading cause of respiratory tract infections. Efficacy of Palivizumab in reducing RSV related hospitalizations has been proven in preterm born infants and children with congenital heart disease (CHD) or bronchopulmonary dysplasia (BPD). However, the high costs of Palivizumab may limit its use. This study described the characteristics of Palivizumab users in the Netherlands and assessed the determinants of receiving Palivizumab among infants with an indication according to the label. METHODS: Data for this study were obtained by linking the PHARMO database network, which includes detailed information on drug dispensing and hospitalization histories, and The Netherlands Perinatal Registry, including perinatal medical case records.