

37/ THE EFFECT OF ASTHMA SEVERITY ON HEALTH-RELATED QUALITY OF LIFE AND WORK PERFORMANCE: DOES THE DEFINITION OF SEVERITY MAKE A DIFFERENCE?

Steven R. Erickson, Duane M. Kirking, College of Pharmacy, University of Michigan, Ann Arbor, MI; Nancy Kline Leidy, Center for Health Outcomes Research, MEDTAP International, Bethesda, MD

This study compares HQL and WP scores across five methods of determining asthma severity: three subjective methods: patient perceived severity (PPS); patient-reported symptom-severity-overall (OSS); symptom-severity nocturnal (NSS); and two objective methods using retrospective claims analyses: oral steroid use (OSU) and multi-drug use (B2, inhaled and oral steroids). Three levels of severity were examined: mild, moderate and severe. Secondary analysis of data from a cross-sectional mail survey of 603 adults treated for asthma in a U.S. managed care organization linked to pharmaceutical/medical claims data. Patients completed the SF-36, Asthma Quality of Life Questionnaire (AQLQ) and a WP scale. Analysis of variance (ANOVA) procedures were used to compare scores across severity level within method and across method within severity level. Within each method, significant severity effects were found for PCS, AQLQ and WPS (except OSU). Significant effects for MCS were also found in the OSS and NSS models. In post-hoc analyses, mild-moderate and mild-severe comparisons were consistently significant ($p < 0.05$). In the cross-method analyses, significant method effects were found at all levels of severity ($p < 0.05$) for most scale scores with ranges as follows: Mild-PCS 47.7 to 50.0; MCS 48.7 to 49.8; AQLQ 5.3 to 5.8; WPS 89.5 to 93.3. Moderate-PCS 41.7 to 47.5; MCS 46.4 to 48.7; AQLQ 4.0 to 4.8; WPS 81.9 to 88.7. Severe-PCS 38.3 to 43.6; MCS 44.1 to 49.2; AQLQ 3.8 to 4.7; WPS: 75.4 to 85.7. Within-method results were consistent with previous studies demonstrating a significant relationship between severity, HRQL and WP. HRQL and WP scale scores varied by the method used to define severity, however. This variation should be considered when performing cross-study comparisons of burden of illness and treatment effects.

38/ QUALITY OF LIFE AFTER INTENSIVE CARE FOR ACUTE LUNG INJURY

Cynthia R. Gross, Academic Health Center, University of Minnesota (UMN), Minneapolis, MN; Craig R. Weinert, Medical School, Minneapolis, MN; Carol Albright, Caron L. Bury, William A. Marinelli, UMN, Minneapolis, MN

Progress has been made in reducing in-hospital mortality from Acute Respiratory Distress Syndrome (ARDS), but there is still relatively little information on the health status of survivors. A sample of 51 patients (men=29, women=22, aged 19-78) who recovered from ARDS or acute lung injury completed a battery of mailed, self-report questionnaires at six months or longer after discharge from intensive care (median 8 mos). Their health-related quality of life (HRQL), as measured by the SF-36, showed large and statistically significant decrements compared to norms across all domains. Clinically relevant levels of depression symptoms were found in 46% of the sample based on the Center for Epidemiologic Studies Depression Scale (CES-D). A subsample (N=18) completed the Post-Traumatic Stress Disorders Checklist (PCL), and while only one patient scored above the level considered indicative of the diagnosis, 61% (11/18) reported these symptoms interfered with their normal social activities. In our sample, the SF-36 mental component score is strongly correlated with the PCL ($r = .80$, $N = 18$, $p < .01$) and with the CES-D ($r = .83$, $n = 49$, $p < .01$). Depression and PCL scores were positively correlated ($r = .64$, $p < .01$). These findings highlight the need to include HRQL outcomes in ICU-based clinical trials. Currently, our group is investigating the relationships among factors such as medications (sedatives and neuromuscular blocking agents) or therapies (ventilation strategies, new medications) and these HRQL outcomes. Additional research should establish whether clinicians are aware of these long-term decrements in HRQL or how families and patients are prepared for post-ICU sequelae. Funding: SCOR Clinical Core P50 HL50152.

39/ EFFECTS OF DISEASE MANAGEMENT ON QUALITY OF LIFE IN PATIENTS WITH ASTHMA

Wolfgang Greiner, Matthias J. Graf v.d. Schulenburg, Institut für Versicherungsbetriebslehre, University of Hannover, Hannover, Germany

In the last years, Disease Management has been recognized as a significant element in improving the care situation of chronically ill people in particular, both from a medical and an economic point of view. This study deals with an economic evaluation of a Disease Management Programme for asthma with the help of an electronic control instrument for Home-Monitoring of the patient. Research was made on the improvement in the quality of life as well as the saved costs. 112 adult patients with asthma of varying severities were divided randomly into two groups. The patients are all members of a large German health insurance group in the Bundesland Rheinland-Pfalz. The first group received an extensive Disease Management Programme with electronic Home-Monitoring, while the control group was treated further by their GP. The patients were observed over a period of 12 months. Lung function tests and investigations on the quality of life were carried out in intervals of six months (at the beginning, after six months and after 12 months; visits one, two and three). The quality of life was measured using the questionnaires Quality of Life Asthma (FLA), a validated disease-specific questionnaire and the EQ-5D (Euro-Qol). In addition, the treatment costs during the study time period were documented and evaluated. During the study, the quality of life of the control group revealed no changes statistically, while the patients in the Disease Management group achieved significantly higher values than those at the beginning of the study. The improvements are related particularly to the "Physical and Psychic Attributes" of the FLA, although they can also be seen in the (less sensitive) generic EQ-5D. Thus, the average EQ-5D value of 62 increased to 72, while in the control group it dropped from 65 to 60. The study data additionally shows that considerable savings are possible with Disease Management for asthma, especially concerning hospital services. These savings are partly counteracted with higher costs in other area.

40/ COPING AND QUALITY OF LIFE IN ADULTS WITH ASTHMA

Edgar A. Correia, Instituto Superior de Psicologia Aplicada, Lisboa, Portugal; Jose L. Pais-Ribeiro, Faculdade de Psicologia, Universidade do Porto, Porto, Portugal; Nuno B. Neuparth, Pedro L. Mata, Fisiopatologia, Faculdade de Ciencias Medicas, Universidade Nova, Lisboa, Portugal

The objective of this cross-sectional study is to explore the relationships between coping strategies and health related quality of life (HRQL) in patients with asthma. The portuguese versions of the Coping with Health Injuries and Problems Scale (CHIPS) and the Asthma Quality of Life Questionnaire (AQLQ) were applied to 60 adults, from both sexes (52% females), with asthma diagnostic. Results showed some significant correlations between self-reported coping strategies and HRQL in asthma. Patients who scored higher in Palliative Coping reported significant worst HRQL in all domains of the AQLQ (varying from $r(60) = -.27$, $p < .05$ in the Emotional Function domain, to $r(59) = -.39$, $p < .01$ in the Exposure to Environmental Stimuli domain), as well as in the Overall Quality of Life, $r(58) = -.35$, $p < .01$. Similar pattern appeared when correlation's between Emotional Pre-occupation coping and AQLQ were made: effectively, asthmatic patients that reported more use of Emotion-Oriented strategies to deal with their asthma showed significant lower HRQL ($p < .01$, in the overall AQLQ, as well as in all its domains). Otherwise, patients that referred more resource of Instrumental or Distraction coping had only negative correlations with Environmental Exposure related QOL ($r(59) = -.32$, $p < .05$; $r(59) = -.34$, $p < .01$, respectively). Results suggests, having in account that some ways of coping have clearly negative implications in HRQL in patients with asthma, that it can have advantage in creating self-management education programs that attend to psychological factors, namely coping strategies.