

MEASUREMENT OF QUALITY OF LIFE BY EQ-5D IN PROLONGED MECHANICAL VENTILATION PATIENTS: COMPARISON BETWEEN PATIENTS AND PROXIES

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OBJECTIVES: The purpose of this study was to assess the utility of quality of life (QOL) in prolonged mechanical ventilation patient and determine the difference between patients and their proxies, including family care-givers and nurses. **METHODS:** We collected consecutive subjects who have been under mechanical ventilation over 21 days in three institutions of southern Taiwan. For patients with basic cognition and ability to communicate their responses, we conducted QOL measurements with Taiwan version of EQ-5D by face to face interview and compare with family care-givers and nurses who directly cared them. Multiple linear regression analyses were conducted to determine the risk factors for difference of scores between patients and proxies. **RESULTS:** A total of 71 patients were enrolled. Their mean age was 77 years, 55% were male. 24 patients were able to assess their EQ-5D and 19 patient-family care-giver pairs and 22 patient-nurse pairs were collected, while 47 family care-giver-nurse pairs were collected for patients with unclear consciousness. The mean of utility assessed by the 24 patients was 0.30 ± 0.22 . The mean differences were -0.05 ± 0.15 and 0.02 ± 0.21 , for patient-family care-givers pairs and patient-nurse pairs, respectively. The results of multiple regression showed that the longer the duration of PMV care the higher the preference score for family care-giver to assess the patient's QOL, after adjustment for age and gender. The mean difference between family care-givers and nurses for patients with poor consciousness was 0.02 ± 0.21 , and there was no statistically significant variable to explain the difference. **CONCLUSIONS:** The measurement of QOL for patients with clear consciousness under PMV was slightly higher for nurses than those of family care-givers. As the duration of PMV grew longer, family care-giver also adopted an attitude closer to the patient.

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EQ-5D BASED QOL ASSESSMENT IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASES (COPD) IN JAPAN

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OBJECTIVES: Although QOL is a crucial outcome measure in clinical / economic assessment of Chronic Obstructive Pulmonary Diseases (COPD) intervention, there are only few studies capturing QOL of COPD patients in Japan. Moreover, their results are reported only from disease-specific questionnaire. Our objective is to evaluate relationships between COPD specific QOL questionnaire, St. George's Respiratory Questionnaire (SGRQ), and generic one, EuroQol (EQ-5D), among COPD patients in Japan. **METHODS:** On November 2008, we assessed utility scores among COPD patients visiting Hokkaido University Hospital (n = 77). SGRQ scores and EQ-5D scores were assessed simultaneously. We evaluated the correlation between two scales and conducted stratified analyses, by age, sex, disease severity and smoking habits. **RESULTS:** Average scores for each scale were 0.829 (EQ-5D) and 29.91 (SGRQ), respectively. Strong correlation between them ($r = 0.741$) were observed. Both scales were significantly influenced by COPD severity. Severe or very severe patients (n = 22), that were, patients whose %FEV1 were less than 50%, were more likely to have significantly lower EQ-5D / SGRQ scores, compared with mild or moderate patients (n = 55). Average EQ-5D scores for severe/very severe, moderate, and mild patients were 0.68, 0.87 and 0.91, respectively. Average SGRQ scores for severe/very severe, moderate, and mild patients were 19.4, 26.1 and 46.1, respectively. Other factors, age, sex and smoking habits, did not have significant influence on both QOL scales. **CONCLUSIONS:** There are strong relationships between EQ-5D score and SGRQ score among COPD patients. Their utility scores are declined as worsening the clinical stages.

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RESPIRATORY-RELATED DISORDERS – Health Care Use & Policy Studies

PREVALENCE OF ASTHMA, DIABETES MELLITUS AND ESSENTIAL HYPERTENSION AND ASSOCIATION OF HEALTH INSURANCE WITH BRAND STATUS OF DIAGNOSIS SPECIFIC PRESCRIPTION DRUGS

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OBJECTIVES: To describe the prevalence of Asthma, Diabetes Mellitus (DM) and Essential Hypertension (EH) in NAMCS 2006 and NHAMCS 2006, and determine the association between Health Insurance (HI) and Brand Status (BS) of prescribed diagnosis-specific medications. **METHODS:** Inclusion criteria included patients with 1) physician diagnosis (in Dx1, Dx2 or Dx3) of asthma (ICD-9 = 493.0-493.9), DM (ICD-9 = 250.0-250.9) or EH (ICD-9 = 401.0-401.9); 2) matched respective chronic condition variables; and 3) at least one prescribed medication (Rx) for the medical condition. Patients with more than one chronic condition were excluded. Patients with private insurance, government insurance and no-insurance/uninsured were included in the study. Patients with blank, unknown or other HI categories were excluded. Rx was categorized into brand or generic. Chi-Square statistics were used to test the association between HI and BS. **RESULTS:** In NAMCS 2006, a total of 656 (2.23%) out of 29,392 patients were included in the study. Of these, 206 (0.70%) patients had

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asthma, 94 (0.32%) had DM and 356 (1.21%) had EH. In NHAMCS 2006, out of 35,105 patients, a total of 910 (2.59%) were included in the study. Of these, 395 (1.12%) patients had asthma, 263 (0.75%) had DM and 252 (0.72%) had EH. Significant associations between HI and BS were discovered in patients with asthma ($p = 0.018$) and EH ($p = 0.001$) in NAMCS 2006. Private insurance patients with these medical conditions were more likely to be prescribed brand medications while patients with government or no-insurance were more likely to receive generic medications. No significant association was observed for DM in NAMCS 2006 and for all medical conditions in NHAMCS 2006 ($p > 0.05$). **CONCLUSIONS:** Health insurance appeared to have an influence on whether a patient with asthma or EH received brand or generic medications based on the data from NAMCS 2006. However, it seemed that the converse was true in NHAMCS 2006.

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HOSPITAL RESOURCE UTILIZATION IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE- AN ANALYSIS OF THE 2005 NATIONAL INPATIENT SAMPLE DATA

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OBJECTIVES: To develop a national assessment and predictors of the length of stay (LOS), total charges and in-hospital mortality among patients with chronic obstructive pulmonary disease (COPD), using retrospective data derived from Nationwide Inpatient Sample (NIS) of the 2005 Healthcare Cost and Utilization Project (HCUP). **METHODS:** COPD-related hospitalizations using inpatient discharge-level data derived from 2005 NIS was utilized. Records with principal diagnosis of COPD were extracted using ICD-9 codes 490.xx-492.xx and 496.xx. Patient- (age, race, gender, payer, patient location, and median household income) and hospital-related (geographic region, location, hospital bed size, type of admission, and number of procedures on record) variables were considered in the analysis. Descriptive analysis was conducted to examine the differences in COPD-related LOS and total charges. Multiple regression was conducted to identify predictors of LOS and charges among patients with COPD. **RESULTS:** A total of 126,130 hospitalized cases of COPD (primary diagnosis) were identified. The mean age was 68.83 years with 55.9% females and 85.5% Caucasians. 44% of hospitalizations were located in large metropolitan areas. Large bed size hospitals (56.1%) and hospitals in the southern region (45.9%) accounted for the most number of hospitalizations. The mean LOS was found to be 4.69 days and mean total charges were found to be \$17,383.78. In-hospital mortality was observed in 2.0% of the hospitalized cases. Number of procedures on the record, and geographic region (west) were found to be significant predictors for both LOS and total charges. Additionally, type of admission was found to be significant predictor for LOS, whereas patient location (small micropolitan) was found to be significant predictor for total charges. **CONCLUSIONS:** Hospital resource utilization is high in patients with COPD. Appropriate disease management and use of preventative care such as early disease management and smoking cessation in identified population can help lower hospital admission rates and costs.

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WHICH SMOKERS GET ADVICE TO QUIT? VARIABLES ASSOCIATED WITH PHYSICIAN ADVICE FOR SMOKING CESSATION

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OBJECTIVES: A significant proportion of smoking adults who visit their health care providers do not receive any advice to quit smoking despite evidence that offering advice increases the likelihood of smoking cessation. We assess patient characteristics associated with receiving physician advice to quit smoking. **METHODS:** The 2005 Medical Expenditure Panel Survey, a nationally representative survey of the U.S. population, was used to identify a weighted sample of 16.7 million "current" smokers age 18 and over, who had a routine check-up within past year, and answered the question: "In the past 12 months did a doctor advise you to stop smoking?" Logistic regression, controlling for the potential confounders of age and gender, was used to estimate the odds of being advised to quit. Dendrograms and mosaic plots are used to display the results graphically. **RESULTS:** Seventy percent (11.7 million) of current smokers were advised to quit in the prior 12 months. As expected, smokers with the following medical conditions had higher odds of receiving advice compared to those who did not have these conditions: patients with cardiovascular diseases (OR = 1.7, $p < 0.01$), diabetes (OR = 2.0, $p < 0.01$), and respiratory diseases (OR = 1.9, $p < 0.01$). There was an increasing odds of being advised to quit as a smoker's general health, measured by the Short Form-12 instrument, deteriorated. Several demographic characteristics were also significantly associated with receiving advice: living in the Northeast had a 48% increased odds compared to living in the South. The odds for married smokers was 28% higher compared to non-married smokers. White smokers had a 20% increase compared to black smokers. **CONCLUSIONS:** Missed opportunities for physicians to provide smoking cessation advice continue to persist. Although patients with several specific medical conditions often get advice to quit, additional efforts are needed among demographic subgroups of patients who continue to smoke.