INPATIENT RESOURCE UTILIZATION IN BRONCHIAL AND LUNG CANCER: ANALYSIS OF 2007 HEALTH CARE UTILIZATION AND PROJECT (HCUP) DATA
Patel B1, Kamal KM1, Atreja N2

OBJECTIVES: To assess overall inpatient resource utilization; and to identify patient-, and hospital-related predictors of inpatient length of stay (LOS), total charges, and inpatient mortality in bronchial and lung cancer. METHODS: A retrospective database analysis was conducted using the 2007 Nationwide Inpatient Sample (NIS) database of the Health Care Cost and Utilization Project (HCUP). Patient- (age, sex, payer) and hospital-related (private, teaching, region) characteristics were included in the model. RESULTS: Descriptive analysis examined the differences in bronchial and lung cancer-related outcome variables. Regression analyses were conducted to investigate the predictors of LOS, charges, and inpatient mortality in bronchial and lung cancer. All statistical analyses were conducted using the Statistical Package for Social Sciences (SPSS). RESULTS: The hospital discharges for bronchial and lung cancer in 2007 NIS were 153,017 (52.38% male, 57.59% in age group 65–84). Mean LOS was 7.3 ± 1.0 days, mean charges were $45,473 ± 1.07, and inpatient mortality was 11.42%. Majority (89.0%) of the hospitalizations were located in metropolitan areas. Most hospitalizations (76.4%) were in private, not-for-profit hospitals. Medicare was the most common payer for the hospitalizations. Total charges were highest for hospitalizations identified in the Western region ($85,665) and in private, for profit hospitals ($59,233). Inpatient mortality was highest among hospitalizations in non-metropolitan areas (16.06%). CONCLUSIONS: Bronchial and lung cancer is the second leading cause of death in United States and thus, it is important to characterize resource utilization and important predictors for the disease. Patient- and hospital-related characteristics identified from this study will be useful in stratifying high-risk individuals and those with high inpatient resource utilization. Disease management programs such as smoking cessation programs can be implemented in high-risk populations which can improve patient well-being, reduce hospitalizations, and promote cost savings.

CANCER – Patient-Reported Outcomes Studies

EFFECTS OF VA ONCWATCH INTERVENTION ON COLORECTAL CANCER SCREENING ADHERENCE
Bun J1, Fisher D2, Lipscomb J2, Ribeiro M1, Byrd-Sellers J1

OBJECTIVES: In 2008, the Veterans Integrated Service Network (VISN) 7 implemented the colorectal cancer (CRC) Oncology Weight intervention (OncWatch), an IT system aimed at improving screening adherence and expanding use of colonoscopy for diagnostic and surveillance follow-ups. This study is to evaluate the effects of the OncWatch on CRC screening adherence. METHODS: We used 1998–2009 Veterans Affairs (VA) administrative data to construct two cohorts of average-risk, age 50–64 veterans eligible for CRC screening, one for 2007 and the other for 2009. Veterans in a cohort for a year were considered adherent if they completed fecal occult blood test during that year, flexible sigmoidoscopy or double-contrast barium enema during that year or the 4 previous years, or colonoscopy during that year or the 9 previous years. Using a difference-in-differences approach, we applied multivariable regression models to compare the proportions adherent to colonoscopy in VISN 7 were 16.44% in 2007 (including 120 hospitals) 30.27% and 32.33%, respectively. Among the screening veterans, the proportions adherent to colonoscopy in VISN 7 were 16.44% in 2007 and 31.62% in 2009; and the proportions in the control VISNs 26.16% and 38.59%, respectively. The multivariable analyses showed that OncWatch was associated with a one-percentage-point increase in the likelihood of adherence among the veterans (P = 0.001). CONCLUSIONS: The CRC utilities review shows a lack of quality of life (QoL) studies for colorectal cancer (CRC) health states; to determine the effects of study characteristics and role of “time to/from initial care” on utility values.

ESTIMATING COMPARISON OF EQ-5D HEALTH STATES’ UTILITY WEIGHTS FOR PNEUMOCOCCAL AND HUMAN PAPILLOMAVIRUS DISEASES IN ARGENTINA, CHILE AND THE UNITED KINGDOM
Galatana J1, Augustovski F1, Colombo I1, Bardach A1, Garcia Mars S1, Carpórea J1

OBJECTIVES: EQ-5D is a widely used generic health measure. One concern is the comparability of EQ5D derived weights of selected health states among different countries. Our objective was to estimate and compare EQ-5D health states’ weights for pneumococcal and human papillomavirus (HPV) diseases in three different countries (Argentina, Chile, and United Kingdom (UK)). METHODS: We used EQ-5D 3L descriptive health states (8 pneumococcal, 4 HPV) were designed and administered to a convenience sample in order to obtain descriptive data regarding the different disease-related EQ-5D health states. Subsequently, country specific EQ-5D time-trade-off based weights were used in order to normalize the disease states into local preference utilities. Finally, inter-country differences for each condition were compared using repeated measures ANOVA. RESULTS: Between July and August 2009, 73 subjects (mean age = 31 years, range 22 to 58) successfully responded the questionnaire. Fifty-three percent of the respondents were female and 96% worked or studied in the health sector. For pneumococcal disease-related health states, utility coefficients’ means ranged from 0.331 (sepsis, Chile) to 0.727 (auditive sequela, Argentina). Regarding HPV-related conditions, their mean ranged from 0.152 (cervical cancer, UK) to 0.848 (CIN1, Argentina). Chile consistently showed the lowest values in pneumococcal states and in one HPV state, while those of UK were the lowest in most HPV states. Argentina showed the highest values in both disease groups. Mean differences between countries in pneumococcal health states were 0.236 (Argentina-Chile), 0.207 (Argentina-UK), and 0.048(Chile-UK), and for HPV were 0.117 (Argentina-Chile), 0.133 (Argentina-UK), and 0.017(Chile-UK). Differences in country-specific values for each health state were statistically significant (p<0.001). CONCLUSIONS: Preference weights for each condition differed significantly between analyzed countries even though the screening, one for 2007 and the other for 2009. Veterans in a cohort for a year were considered adherent if they completed fecal occult blood test during that year, flexible sigmoidoscopy or double-contrast barium enema during that year or the 4 previous years, or colonoscopy during that year or the 9 previous years. Using a difference-in-differences approach, we applied multivariable linear probability models with hospitals fixed-effects for estimation. RESULTS: The proportions of veterans adherent to screening in VISN 7 (including 9 hospitals) were 31.62% in 2007 and 34.37% in 2009; and the proportions in the control VISNs (including 120 hospitals) 30.27% and 32.33%, respectively. Among the screening adherent, the proportions adherent to colonoscopy in VISN 7 were 16.44% in 2007 and 24.40% in 2009; the proportions in the control VISNs 26.16% and 38.59%, respectively. The multivariable analyses showed that OncWatch was associated with a one-percentage-point increase in the likelihood of adherence among the veterans for screening colonoscopy among the adherent (P < 0.001). CONCLUSIONS: This preliminary study suggests that OncWatch slightly increases CRC screening adherence among average-risk, age 50–64 veterans. However, OncWatch may have unintentionally reduced use of screening colonoscopy, possibly because limited colorectal capacity was diverted from screening indications to diagnostic and surveillance indications.

PATIENT PREFERENCE-BASED UTILITY WEIGHTS FROM THE FUNCTIONAL ASSESSMENT OF CANCER THERAPY-GENERAL (FACT-G) IN WOMEN WITH HORMONE RECEPTOR POSITIVE METASTATIC BREAST CANCER RECEIVING LETROZOLE PLUS LAPATINIB OR LETROZOLE ALONE
Delcea TE1, Sofrygin O1, Amannar M1

OBJECTIVES: The EGF30008 trial demonstrated that first-line therapy with the combination of the anti-HER2 tyrosine kinase inhibitor lapatinib plus the aromatase inhibitor letrozole improves progression free survival vs. letrozole plus placebo among post-menopausal women with HER2+ and HR+ metastatic breast cancer (MBC). Results of analyses of the impact of lapatinib on patient health-related quality of life (QoL) based on FACT-G (Breast) questionnaire suggest that QoL was improved in cross-treatment groups over 48 weeks. METHODS: This study estimated patient utility values for the treatment arms of EGF30008 using the FACT-G. Time-trade off (TTO) utility values were estimated using responses to 4 items from the FACT-G (Physical Well-Being, Functional Well-Being, Emotional Well-being, and FWB-able to enjoy life) and a published algorithm derived from 1433 cancer patients (Dobrez 2007). For each patient in the EGF30008 trial, mean utility values were calculated for assessments before vs. on after progression. Pre- and post-treatment utilities were averaged across patients for each treatment group in order to aggregate patient level utilities by the numbers of assessments per patient. RESULTS: Among HER2+ patients, mean TTO utility values at baseline were 0.86 (0.10) for letrozole and lapatinib (N = 84) and 0.86 (0.09) for letrozole-placebo (N = 73). Mean (SD) pre- and post-treatment utilities for letrozole-lapatinib were 0.88 (0.13) for letrozole-lapatinib (N = 102) and 0.86 (0.13) for letrozole-placebo (N = 87). Utility values post-progression were based largely on a single assessment at disease progression for each patient and were 0.82 (0.12) for letrozole-lapatinib (N = 63) and 0.82 (0.10) for letrozole-placebo (N = 57). Effects with CRC cancer type, condition, stage, time to to from initial care, instrument, administration and study design as independent variables. RESULTS: In the base model, the estimated utility of the reference case (scenario of a CRC patient on stage I-III in continues care and more than 1 year post-operation, rated by using EQ5D/ HRQOL with 0.72). Cancer type, condition, stage, time to operation, and study design were associated with utility differences of 0.08 to 0.30 (P < 0.05). Utilities derived by using EQ5D/HRQOL instrument were 0.09 lower than SG/TOO, 0.08 lower than EQ5D/vas and 0.09 lower than SF-36 (P < 0.01) in the base model of QLS analysis. These utility differences were significantly larger in the supplemental model. Utilities elicited at “post-operation more than 1 year” were 0.15 higher than “preoperative”, 0.30 higher than “post-operation 1 year” in supplemental model. CONCLUSIONS: The CRC utilities review shows a lack of quality of life (QoL) studies for colorectal cancer (CRC) health states; to determine the effects of study characteristics and role of “time to/from initial care” on utility values.