CHEMOTHERAPY DURING THE FOLLOW-UP. Sensitivity analyses (SA) with cycle number controlled as a count variable and a dummy variable (with different thresholds at 6, 7, 8, 9) were performed to test the robustness of the association. RESULTS: The sample included 47 patients, with mean age 75 (range 58–95), average baseline PSA 296 (range 0.21–2139). The average number of treatment cycles was 5 (range 1–52), with 27 (57.5%) completing <10 and 19 (42.5%) patients ≥10 cycles. Median survival was 224 days for <10 group, and 570 days for ≥10 group (P = 0.0011). The Cox model found a higher likelihood of survival for ≥10 group (HR = 0.31, 0.003). All consistent results were found in SA. CONCLUSIONS: Our study suggested that more treatment cycles of D was associated with prolonged OS for metastatic PC. The results could be confounded by unadjusted factors, therefore, no cause inference can be drawn based on this analysis.

INEQUALITY OF FORMULARY COVERAGE OF COLORECTAL CANCER DRUGS AMONG TAIWAN’S NATIONAL HEALTH INSURANCE REGIME

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OBJECTIVES: To examine: 1) formulary coverage for colorectal cancer drugs by different hospitals in Taiwan’s National Health Insurance/NHI; 2) how coverage varies by hospital level (medical center vs. regional hospital) and location; and 3) how coverage varies by drug characteristic. METHODS: Nationwide cross-sectional survey of regional hospitals and medical centers in Taiwan during June to August, 2009. A validated and piloted questionnaire study was used as the research instrument. The outcome variables were formulary coverage, cost sharing tier, and utilization management tools (prior authorization, quantity limit, step therapy) for the drugs covered by insurance benefit or self-payment. We examined whether there was an association between hospital level, ownership and location (urban vs. rural), and drug characteristics (drug costs, years, since approval) with these outcomes. RESULTS: A total of 95 hospitals having oncology department constituted the study group, with respond rate of 90.5% (86/95). For eight colorectal cancer drugs, the coverage rate ranged from 98.8% to 74.4% (bevacizumab 93.3%; fluorouracil 94.8%; oxaliplatin 95.1%; irinotecan 88.4%; cetuximab-uracil 93.5%; capecitabine 87.2%; cetuximab 74.4%; bevacizumab 79.1%). Cetuximab, cetuximab and bevacizumab are all original brand drugs; on the contrary, fluorouracil and cetuximab-uracil are all generic sources. Cetux- imab, irinotecan, and bevacizumab had highest coverage rate, respectively. Regardless of differences in hospital level, ownership or locations, the two most important factors influencing the decision making of formulary listing was the safety and effectiveness of the drug. CONCLUSIONS: Comparing to target therapy drugs, cetuximab and bevacizumab, patients had less accessibility barriers to traditional colorectal cancer drugs. Furthermore, the geographic differences have an impact on accessibility of such drugs by patients.

EFFECT OF ACCESS TO CANCER CARE ON AGE-SPECIFIC UTILIZATION OF CHEMOTHERAPY AMONG ELDERLY WOMEN WITH METASTATIC BREAST CANCER

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OBJECTIVES: Although chemotherapy was proven efficacious for metastatic breast cancer (MBC) in clinical trials, lower chemotherapy rates have been observed among older patients. This may be due to greater uncertainty in the trade-off between the risk and the benefit of chemotherapy associated with older age because of the under-representation of older patients in cancer clinical trials. These uncertainties may cause other non-clinical factors, such as access, to matter more for older patients. We examined the effect of access to cancer care, including travel distance to the nearest oncologist practice, local area per capita number of oncologists, per capita number of hospices, and area chemotherapy rate among stage IV cancer patients across four regions, on age-related difference in chemotherapy use for elderly MBC patients. METHODS: The retrospective cohort study used the 1992–2002 SEER-Medicare database. Chemotherapy use was defined as at least one chemotherapy-related claim within 6 months post diagnosis. We defined five age subgroups: 66–69, 70–74, 75–79, 80–84, and 85+. For each age subgroup, we used multivariate logistic regression to estimate the effect of access to cancer care on chemotherapy use controlling for covariates. RESULTS: Among 4533 elderly patients with MBC, 30.16% used chemotherapy. Chemotherapy rate decreased with age. Subgroup analysis showed that the area treatment rate was positively associated with chemotherapy use in all age groups. In addition, older patients who were 85 years old, local area oncologist density, area chemotherapy rate, and negatively associated with chemotherapy use. This effect was not observed among younger age groups. CONCLUSIONS: Access to cancer care affects chemotherapy choice among older patients whose clinical evidence is unclear, which may be attributable to patient preferences and physician concerns of real benefit of chemotherapy in older patients. This study can help us consider older patients’ limited life expectancy and higher risk of toxicities. The more uncertain the evidence with age, the more access may affect chemotherapy choice.

SOCIAL DISPARITIES ACROSS THE CONTINUUM OF LUNG CANCER: A SYSTEMATIC REVIEW OF THE LITERATURE

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OBJECTIVES: The purpose of this review is to evaluate the published literature to assess social inequalities in lung cancer using the ‘cancer disparities grid’. METHODS: Three computerized databases were searched from January 1990 to December 2009 to identify published English language articles that collected data from study participants living in the United States. Articles were reviewed and articles that dealt with social inequality and lung cancer were selected. A total of 96 articles were identified that met the selection criteria. The articles were then classified according to the cell of the cancer disparities grid. RESULTS: The majority of research identified for the grid has focused primarily in domain of inequality, race/ethnicity and racism, and one column of the cancer continuum, cancer treatment. About one-third of the articles focused on multiple aspects of social inequalities. There were few or no published research articles within many of the domains of social inequality along the continuum of lung cancer prevention, treatment, and outcomes. CONCLUSIONS: This review found only a modest amount of research has been conducted that has examined the influence of social inequalities on lung cancer. Findings suggest that a multidisciplinary approach is needed to measure and remedy these social inequalities.

RACIAL DISPARITIES ASSOCIATED WITH TREATMENT AND SURVIVAL IN ELDERLY PATIENTS WITH EARLY STAGE OPERABLE BREAST CANCER

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OBJECTIVES: Disparity in breast cancer treatment is a serious concern in the elderly since majority of the breast cancer cases occur in elderly women aged 65 and above. We examined racial disparities associated with breast cancer treatment and survival in elderly patients with early stage operable breast cancer. METHODS: We studied a cohort of 23,110 node positive and 31,572 node negative women aged 65 and over diagnosed with incident American Joint Committee on Cancer (AJCC) stage I, II or IIIa (early stage operable) breast cancer between January 1, 1991 and December 31, 2002 using SEER-Medicare data. Multivariate logistic regression analyses were performed to assess the relative odds of receiving surgery (Breast Conserving Surgery, BCs versus Mastectomy), chemotherapy (within 6 months of diagnosis) and radiation after BCs for African Americans compared to Whites. Cox proportional hazard ratio of mortality was used to determine the effectiveness of surgery, chemotherapy and radiation after BCs for African Americans compared to Whites. RESULTS: The median follow-up time was 6.8 years. African American women had significantly lower chemotherapy use than Whites (52% vs. 62%, P<0.001) and higher mortality (0.016 vs. 0.009, P=0.001). African American women had significantly lower chemotherapy use than Whites (52% vs. 62%, P<0.001) and higher mortality (0.016 vs. 0.009, P=0.001). CONCLUSIONS: African American women with node positive and node negative tumors were 21% (OR, 0.79; CI, 0.68–0.92) and 19% (OR, 0.81; CI, 0.69–0.97) less likely than White women to receive adjuvant chemotherapy. There was no significant difference in mortality between African American and White women in similarly treated groups.

THE COST OF TREATING LUNG CANCER IN THE UNITED STATES: AN ANALYSIS OF THE MEDICAL EXPENDITURE PANEL SURVEY

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OBJECTIVES: Lung cancer is the most deadly cancer among other types of cancer, in both men and women. In 2005, lung cancer accounted for more deaths then breast cancer, prostate cancer and colon cancer combined. The purpose of this study was to describe the average annual medical resource expenditures associated with individuals with lung cancer in the United States civilian noninstitutionalized population. METHODS: Data for this study were derived from the 2002–2007 Medical Expenditure Panel Survey. Individuals with lung cancer diagnosis were identified by using truncated International Classification of Diseases (Ninth Revision) codes obtained from household interviews. All individuals ≥40 years old with health care resource use or expenditures for lung cancer were included in this study. Costs were weighted to reflect the complex sampling scheme. A societal perspective was adopted for this analysis. RESULTS: The average annual mean total health care expenditures among individuals with lung cancer = $23,249 (2007 US dollars) were $34% of average annual direct medical expenditures in individuals with lung cancer were for inpatient hospitalization. Annually, lung cancer patients had on average 17 office based provider visits to physician and non-physicians resulting in $5,763 as expenses. Further, lung cancer patients had on average 6 outpatient visits annually, resulting in $4,304 as expenses. CONCLUSIONS: Lung Cancer causes a large societal burden of illness that is expected to increase. This study provides a valuable foundation and historical measure against which to compare other estimates.