AN ANALYSIS OF BIOMARKER TESTING AND APPROPRIATE TREATMENT AMONG WOMEN WITH BREAST CANCER USING ONCOLOGY EMR DATA

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The efficiency of the screening algorithm would become a basis for changing the national guidelines. However, outcomes research has lagged behind due to lack of data sources capturing results, tests, and drug treatment. This study uses a new oncology electronic medical record (EMR) database to examine testing, documentation, results, and appropriate treatment among a cohort of women with breast cancer treated in community oncology practices. METHODS: The Truven Health MarketScan® Oncology EMR Database was used to select patients diagnosed with breast cancer between July 1, 2011 and September 30, 2013 who had at least 1 year of known disease stage. Biomarker tests and results for estrogen receptor (ER), progesterone receptor (PR), and human epidermal growth factor receptor 2 (HER2) were observed along with HER2 mutation status (AT) or new HER2 targeted treatment. RESULTS: 757 patients were eligible for the study. The most common 3rd-line testing locations were 36% testing centers, 24% treating centers, 20% academic centers, and 16% referral centers. Testing rates at index date were 35.4% (wild-type patients), 32.8% (HER2 positive patients), and 20.8% (HER2 negative patients) respectively received biomarker specific treatment. Treatment rates varied by disease stage, with >80% of stage IV women receiving appropriate treatment for ER positive or HER2 positive cancer. Among HER2 negative stage IV women, appropriate treatment was 16%. 6%, 12%, and 14% of patients respectively had a biomarker result that was not confirmed to be ER positive, HER2 positive, and HER2 negative treatment rates. CONCLUSIONS: Both by the type of test and disease stage. Quality improvement programs aimed at documentation as well as appropriate treatment may benefit patients treated in community oncology practice.

IS DEPRESSION RELATED TO UNDERUSE OF BREAST CANCER SCREENING?

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OBJECTIVES: Many studies have demonstrated that depression is associated with poorer health outcomes and decreased health-seeking behavior of various disorders. In particular, inconsistent results regarding the impact of depression on mammography use behaviors. The objective of this study was to assess the relationship between women’s depression and mammogram use. METHODS: This cross-sectional study used data from the 2012 Behavioral Risk Factor Surveillance System (BRFSS) and employed the Health Belief Model (HBM). The independent variable was the presence of depression. The dependent variable was mammogram use, which was defined as the presence of at least one mammogram in the two years of follow-up. Logistic regression analysis was used to assess the association of depression with mammogram use. RESULTS: An estimated population size of 45,578,030 women was included. Among this population, 23.02% of women reported the presence of a depressive disorder. A chi-square test showed a significant relationship between mammogram use and depression (p<0.001). The unadjusted OR comparing women with depression to women without depression on mammogram use was 0.81 [0.76, 0.86], which means that both the odds of ‘screened within two years’ versus the combined ‘screened, but not within two years’ versus ‘never screened’ and the odds of combined ‘screened within two years’ versus ‘screened, but not within two years’ versus ‘never screened’ were 0.81 times lower for women with depression when compared to women without depression (p<0.001). However, when demographic and HBM characteristics were controlled, depression had a non-significant association with mammogram use. CONCLUSIONS: Depression itself was related to the underuse of mammography. However, after controlling for demographic and HBM characteristics, depression was not associated with the underuse of mammography.

COMPLEX SCREENING TEST FOR EARLY CANCER DIAGNOSTICS

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OBJECTIVES: Screening colon, stomach, bladder, prostate cancers is very relevant to reduce mortality. The applicable diagnosis scheme doesn’t allow detecting tumor processes in the early stages, later diagnosis increases cost of the next treatment, and the index day of treatment. Quality improvement programs aimed at documentation as well as appropriate treatment may benefit patients treated in community oncology practice. METHODS: We tested 88 patients for diagnosing possible colorectal and stomach cancer and 182 urological patients for diagnosing bladder and prostate cancer. All patients were treated in the hospital and had mammography test results for diagnosing possible colorectal and stomach cancer were negative; among 182 tests of the urological patients we received 17 positive results, future diagnostics proved 7 Cr-cases and 1 with precocious (un under control). Such data does not allow determining the distribution and frequency of results. For 7 Cr-diagnosed patients the treatment allows almost twice increase of expected life time and the 8-th patient may become our first preventive Cr-case. Proved efficiency of the screening algorithm would become a basis for changing the national standard of medical care in Lviv region and Ukraine in general.