AN ANALYSIS OF BIOMARKER TESTING AND APPROPRIATE TREATMENT AMONG WOMEN WITH BREAST CANCER USING ONCOMETRY EMD DATA

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RESULTS: Women, one million women tested for specific breast cancer biomarkers for a real-case. However, outcomes research has lagged behind due to lack of data sources capturing testing, results, and drug treatment. This study uses a new oncology electronic medical record (EMR) database to examine testing, documentation of 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 visit and 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 test results. RESULTS: Of 57,660 women, 1,825 were selected with index metastasis (ICD-9-CM 196.x-198.x or EMR Stage IV) 7/1/2006-3/31/2012, age ≥18, no HR overexpression, 1L chemotherapy (anthracycline-based or taxane-based) at any time. <br><br>SCREENING OF COLON, STOMACH, BLADDER, PROSTATE CANCERS IS VERY RELEVANT BUT NOT WITHIN TWO YEARS’ AND ‘NEVER SCREENED’ AND THE ODDS OF COMBINED ‘SCREENED OFTEN’ (11.4%) WAS SIGNIFICANTLY LESS THAN ‘NEVER SCREENED’ (24-30%). THIS BENEFIT, AND FIRST MONTH COSTS OF $9-13,000, MAY REPRESENT MID-LEVEL CLINICAL AND ECONOMIC VALUE TO PATIENTS AND HEALTHCARE SYSTEM.

The first year results of the test use data are analyzed. Rapid test for occult blood for determining ‘hidden’ ‘high’ and ‘low’ bleeding in both fields displays this type of screening in a very interesting and economically appropriate rank. Rapid test for occult blood specific for human hemoglobin and transferrin is more sensitive, freely available in the pharmacy network, economically priced, easy to use and gives results within 10 minutes. The first year data of the test use data are analyzed. Patients used tests purchased at their own expense. We’ve tested 88 patients for diagnosing possible colorectal and stomach cancer and 182 urological patients for diagnosing possible bladder and prostate cancer. All 88 digestive patients tested for diagnosing possible colorectal and stomach cancer and 182 urological patients for diagnosing possible cancer of bladder and prostate. All 88 digestive patients test results for diagnosing possible colorectal and stomach cancer were negative; among 182 digestive patients we received 17 positive results, future diagnostics proved 7 Cr-cases and 1 with precocious (in under control). Such data does not allow for statistical significance. For 7 Cr-diagnosed patients the treatment allows almost twice expected 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.

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RELATIONSHIP BETWEEN PROGRESSION-FREE SURVIVAL (PFS) AND OVERALL SURVIVAL (OS) IN HORMONE RECEPTOR-NEGATIVE METASTATIC BREAST CANCER (MBC): A COMPARATIVE EFFECTIVENESS ANALYSIS USING LINKED CLAIMS, EMRs, AND MORTALITY RECORDS

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RESULTS: FDA approved accelerations for some chemotherapy used FFS as an OS surrogate. However, an updated OS was revised after more OS was not well-observed. We compared FFS with OS by first-line (1L) chemotherapy using real world evidence from US mBC patients. METHODS: IMS Health Comprehensive Disease Records for Breast Cancer link IMS PharMetrics Plus, oncology EMRs, and Social Security Data. Female breast cancer patients (ICD-9-CM 174.x) were selected with index metastasis (ICD-9-CM 196.x-198.x or EMR Stage IV) 7/1/2006-3/31/2012, age ≥18, no HR overexpression, 1L chemotherapy (anthracycline-based or taxane-based) at any time. RESULTS: Of 845 mBC patients, 334 met study criteria (mean [SD] age=51.7 [8.7] years, 20.4% HER2+). Propensity for NCA (n=70) vs. AT (n=264) increased with diabetes history (OR=1.03, 95% CI 1.01-1.05). NCA were managed a mean (median) 195.2 (73.0) days (anthracyclines 53.4 [44.0], taxanes 44.9 [47.0], 3-Log IK 54.3, 3.9 df, p<0.001). Cox regression estimated that 30 additional days of 1-L chemotherapy predicted slightly longer post-1L OS (HR=1.03, 95% CI 1.00-1.06). NCA (vs. AT) predicted stronger decreases in post-1L OS (HR=2.32, 95% CI 1.1-4.86) despite propensity adjustment. CONCLUSIONS: Duration of 1L chemotherapy, as a pre-treatment, predicted slightly longer post-1L OS. Refractory chemotherapy was a stronger predictor of post-3L OS, adjusted for selection bias. Real world data suggests that FFS is a poor OS surrogate in mBC.