

## 33rd Annual

### San Antonio Breast Cancer Symposium

#### Abstract Number: 850336

Presenting/Correspondence Author: Amye J Tevaarwerk, MD

Title: Predictors of employment outcomes in breast cancer (BrCa) patients: an analysis from E2Z02 (ECOG's SOAPP study)

Body: Cancer survivors are more likely to be unemployed than healthy counterparts (de Boer et al, JAMA 2009). BrCa patients comprise roughly one-fourth of the survivor population and face challenges in their ability to work. Age and cancer therapy may increase the risk for unemployment (Hassett et al, Cancer 2009). We analyzed data from E2Z02 to examine factors affecting employment in BrCa patients.

Methods: E2Z02 prospectively enrolled patients with breast, colon, lung and prostate cancer irrespective of therapy or stage. We limited this analysis to white or black BrCa patients with age at registration 65 yrs (those over 65 were excluded as likely to be retired; other minorities were excluded due to small numbers). Patients and oncologists answered the MDASI-ECOG regarding symptoms; additional baseline data regarding disease and treatment were collected. Change in employment was assessed by 'Has your employment status changed due to illness?' [Answer = Yes/No]; and level of employment by 'What is your current employment status?' [Answer = full-time; part-time; not in the workforce].

We developed a multivariate logistic regression model for each employment outcome (change in employment, level of employment). Explanatory variables included treatment number (TNs), age (45 vs 46-65 yrs), race (white vs black), stage (nonmetastatic vs metastatic), therapy status (off vs on), and ECOG PS (0 vs 1 vs 2-4). TNs were counted as 0 (no medical therapy [MT] or radiotherapy [RT]), 1 (either) or 2 (both). MT encompassed both hormone and chemotherapy.

Results: E2Z02 accrued 3123 patients from 3/06 to 5/08 at academic (n=6) and community (n=32) medical oncology clinics (see demographics table); 50% of E2Z02 patients had BrCa. Patients with nonmetastatic BrCa (OR 2.16, 95% CI 1.53-3.05), off therapy (OR 1.79, 95% CI 1.31-2.44), and white race (OR 1.64, 95% CI 1.10-2.46) had a higher chance of remaining employed than their counterparts.

Patients with PS 0 were more likely to remain employed compared to patients with PS 1 (OR 1.85 95%CI 1.36-2.5) or PS 2-4 (OR 2.61, 95% CI 1.25-5.44). Age and TNs were not significant. As to the level of employment, nonmetastatic patients (OR=1.60, 95% CI = 1.17-2.21) and patients with better PS ( $p < 0.0001$ ) worked more hours in the workforce than their counterparts.

Conclusions: This analysis identifies additional risk factors for employment changes in BrCa patients. Further research is needed to understand the complex relationship between race, other predictors and employment status. These findings could define a group of BrCa survivors at risk for changes in employment outcomes, and potentially allow for targeted interventions.