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'Vulnerable Elders Survey' Predicts Breast Ca Outcomes

— Self-administered tool takes 4 minutes for patients to complete

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The Vulnerable Elders Survey (VES-13) is an easily used tool that was able to predict functional decline and death within 12 months of breast cancer treatment among older women with newly diagnosed, nonmetastatic, early-stage breast cancer, according to a study online in [Cancer](#).

Approximately one in five of the women functionally declined or died within 12 months of beginning treatment.

Univariate analysis demonstrated that the risk of functional decline/death increased with VES-13 score -- from 23% for women with a VES-13 score of 3, to 76% for women with a score of 10. Multivariate logistic analysis identified VES-13 score (adjusted odds ratio [OR] 1.37) and having a high school education (adjusted OR 2.47) as independent predictors of functional decline/death.

"Use of the VES-13, a patient self-administered instrument that takes only 4 minutes to complete, should be encouraged for the early identification of those at risk," wrote the researchers, led by [Cynthia Owusu, MD](#), of University Hospitals Seidman Cancer Center in Cleveland.

Given the importance of functional status in predicting cancer treatment tolerance, "it is conceivable that the VES-13 might serve as a useful instrument for predicting chemotherapy toxicity and tolerance to cancer treatment."

As well, early identification of those at greatest risk of functional decline could allow preventive measures to be taken, and ultimately improve overall survival.

The longitudinal, single-center study included 206 women who were at least 65 years of age with newly diagnosed, untreated (except for surgery) nonmetastatic stages I to III breast cancer; participants were attending ambulatory oncology clinics between April 2008 and April 2013. Of those, 184 participants (89%) completed 12 months of follow-up, and 22% functionally declined or died.

To assess racial differences in functional outcomes, the investigators decided a priori to include at least one African American woman for every two non-Hispanic white women, based on existing general population data showing that African Americans are more likely to suffer from many chronic diseases, including functional disability.

[Previous research](#) by Owusu et al also reported that at initial diagnosis of breast cancer, African Americans were four times more likely than non-Hispanic whites to have functional disability.

Baseline VES-13 scores were obtained just prior to treatment. Participants' self-reported functional status at baseline and at 6 and 12 months were evaluated using the Katz Activities of Daily Living (ADL) scale and the Lawton Instrumental Activities of Daily Living (IADL); a decrease of at least 1 point on either scale, or death between baseline and

12 months, represented the primary outcome.

Eight possible explanatory variables were assessed, including age, race, marital status, educational status, median household income, living situation (alone or "other"), health insurance carrier, body mass index (<25 or ≥ 25 kg/m²), cancer stage (I-II or III), receipt of chemotherapy/hormone therapy, and comorbidity (Charlson comorbidity index score of 0-1 or ≥ 2).

Logistic regression analyses using either univariate or backward multiple models produced the same results: the only significant independent predictors of functional decline/death at 12 months were the baseline VES-13 score, adjusted OR 1.37 (95% CI 1.18-1.57) per 1-point increase in VES-13 score, and having a high school education or less, adjusted OR 2.47 (95% CI 1.08-5.65).

The study expands on the [research of Saliba](#) et al showing that among community-dwelling seniors who did not have cancer, a VES-13 score of 3 was associated with four times the risk of functional decline and death at 2 years, compared with those with scores less than 3.

Owusu observed that the predictive capabilities of the VES-13 seen in their [study](#) closely reflect those reported by [Min et al](#) in the general population of older adults -- "which attests to the validity of the VES-13 in predicting functional decline, regardless of the patient population."

The authors noted that previous assessments of the VES-13 also support its role in screening geriatric oncology patients to identify those who may and may not require a full Comprehensive Geriatric Assessment.

[Deborah Dudgeon, MD](#), head of the Palliative Care Medicine Program for Queen's University and Kingston General Hospital in Kingston, Ontario, Canada, told *MedPage Today* that, given the heterogeneity of the older population "from fit to frail," this study is

important in demonstrating the utility of the VES-13 as a [brief] screening tool.

"It helps identify patients who are fit enough for standard or aggressive cancer treatment," said Dudgeon. "So instead of basing that judgement on age alone, you might alter treatment or tailor more specific interventions for older, vulnerable individuals to ensure that they don't have functional decline, or recommend that they have a more fulsome geriatric assessment."

Dudgeon, also of Canadian Partnership Against Cancer, added that the disproportionate selection of African American women, "while appropriate given the study's primary outcome," means the finding that one in five women experienced functional decline or death within one year of beginning breast cancer treatment cannot be generalized to all older women with breast cancer.

Study limitations noted by the researchers included use of a cohort from a single center; use of a tumor registry rather than a more centralized database to determine deaths; and the lack of inclusion of treatment duration or recurrences in the analysis. Despite these limitations, the results are consistent with existing literature, Owusu and colleagues wrote.

The research was supported in part by a Susan Komen Breast Cancer Foundation Career Catalyst in Disparities Research Grant and by the National Institutes of Health. One of the co-authors disclosed that her spouse is the medical director of dialysis units owned and operated by and has ownership in American Renal Associatesc.

Reviewed by [F. Perry Wilson, MD, MSCE](#) *Assistant Professor, Section of Nephrology, Yale School of Medicine and Dorothy Caputo, MA, BSN, RN, Nurse Planner*

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