# SIOG 2017 - Abstract Submission

## A NOVEL GERIATRIC ASSESSMENT TOOL THAT PREDICTS POSTOPERATIVE SURGICAL AND GERIATRIC COMPLICATIONS IN OLDER ADULTS WITH CANCER

Y. Pollock [1,*], C.-L. Chan [2], K. Hall [2], K. Diehl [3], L. Min [2]
[1]Div. of Hematology/Oncology, University of California San Francisco, San Francisco, [2]Div. of Geriatric Medicine, [3]Dept. of Surgery, University of Michigan, Ann Arbor, United States

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### Introduction:
Comprehensive geriatric assessment (CGA) has been shown to predict surgical outcomes among oncology patients in a number of studies [1, 2]. However completing a CGA can be time consuming, which is a huge barrier to implement it in most surgery clinics.

### Objectives:
We aimed to assess the ability of a new abbreviated geriatric assessment tool, the Vulnerable Elderly Surgical Pathways and outcomes Assessment (VESPA), to predict post-operative surgical complications, geriatric complications, length of stay, and post-discharge functional or nursing needs among older adults undergoing oncologic surgeries.
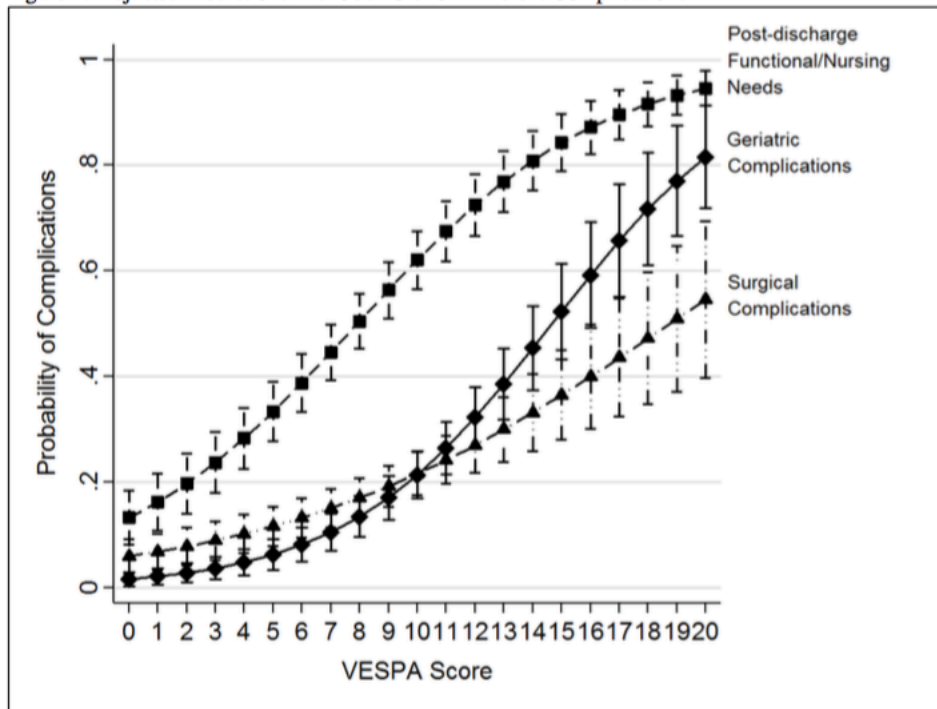
### Methods:
From 2008 to 2011, assessments were completed using the VESPA tool for patients age $\geq$ 70 seen in an university pre-operative clinic. The VESPA assessed functional status, mood, cognition, and mobility, and can be completed in <10 minutes. We selected="selected" the subset of patients who underwent a variety of oncologic surgery and evaluated association of the VESPA score with surgical complications, geriatric complication, post-discharge functional dependence or nursing needs, and length of stay. We used t-test, $\chi 2$, or fisher's exact test to compare the complication rates between high and low VESPA scores ($\geq$9 vs. <9). Logistic regression was used to test whether VESPA score predicts all the post-operative complications measured in this study.

### Results:
A total of 476 patients who underwent oncologic surgeries received geriatric assessment using VESPA. The study cohort comprised of a wide range of malignancies including skin, gastrointestinal, urologic, breast, head and neck, and lung cancers. Compared to patients with low VESPA scores (<9), patients with high VESPA scores ($\geq$9) had longer length of stay (mean 6.6 vs. 2.0 days; p<0.001), more geriatric complications (39.5% vs. 5.7%; p<0.001), surgical complications (29.5% vs. 11.8%; p<0.001), and post-discharge functional dependence or nursing needs (76.0% vs. 31.7%; p<0.001). Each additional point on the VESPA scale was associated with increased probability of geriatric complications (OR = 1.3 [95% CI = 1.2-1.4]; p<0.001), surgical complications (OR = 1.2 [95% CI = 1.1-1.2]; p<0.001), and post-discharge functional or nursing needs (OR = 1.3 [95% CI = 1.2-1.3]; p<0.001) (Figure 1).

### Image:

Figure 1: Adjusted Predictions with 95% CIs for Different Complications*



Post-discharge Functional/Nursing Needs

Geriatric Complications

Surgical Complications

*Prediction based on logistic regression for different complications. Mean age (78) was used to estimate the probabilities.

## Conclusion:

The VESPA tool adds to the existing body of research [3-4] by providing risk prediction for not only surgical complications, but also postoperative adverse outcomes that are unique to older adults including delirium, falls, malnutrition, and functional needs. it is also a practical tool that can feasibly fit into the current workflow of a surgical oncology clinic.

## References:

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Disclosure of Interest: None Declared

Keywords: functional status , geriatric assessment , postoperative complication