

A Multi-Institutional Evaluation of ACOG and SGO Referral Guidelines For an Ovarian Mass

Rachel Ware, Alan Smith, Christopher Desimone, Leigh Seamon, Scott Goodrich, Iwona Podzielinski, John van Nagell Jr., Zhen Zhang, Frederick Ueland.

Objectives: The American College of Obstetrics and Gynecology (ACOG) and the Society of Gynecologic Oncologists (SGO) have published referral guidelines for women with a pelvic mass. Our objective was to prospectively evaluate the performance of these guidelines.

Methods: This prospective, multi-institutional trial included 27 primary care and specialty sites throughout the United States. The ACOG/SGO guidelines were evaluated in women scheduled for surgery for a known ovarian mass. Study information was collected prior to surgery, including: blood for CA-125, presence of ascites, evidence of abdominal or distant metastases (by exam or imaging), family history of breast or ovarian cancer (first degree relative), and nodular or fixed pelvic mass. CA-125 results were from one laboratory utilizing the same immunoassay. Study results were correlated with surgical pathology. Women were excluded from analysis if surgery was not performed, pathology report was not available, or blood specimen was unusable.

Results: Five hundred and ninety women with an ovarian mass on pelvic imaging were enrolled of which 516 were evaluable. Fifty two percent were from non-specialty centers. There were 151 ovarian malignancies (42 premenopausal and 109 postmenopausal women). Table 1 outlines the performance of the ACOG/SGO guidelines for all stages. In addition, the proposed modifications by Dearing and colleagues failed to improve the overall performance of the published guidelines. In premenopausal women with early stage disease (stage I/II), the referral criteria were associated with the following statistical parameters: sensitivity 47%, specificity 77.4%, PPV 15.7%, and NPV 94.2%.

Conclusions: When evaluated in a large multi-institutional trial, the ACOG/SGO referral guidelines have a modest performance. These guidelines have low sensitivity in predicting malignancy, particularly in premenopausal women and women with early stage ovarian cancers. A new strategy is necessary to improve the preoperative assessment for women with ovarian tumors, and to facilitate decisions about referral to a gynecologic oncologist before surgery.

Table 1	All stages (N= 516)	Premenopausal (N= 235)	Postmenopausal (N= 281)
Sensitivity, %	77.0	57.8	84.5
95% CI	69.9 to 82.8	43.3 to 71.0	76.8 to 90.0
Specificity, %	67.6	77.4	56.4
95% CI	62.6 to 72.3	70.9 to 82.7	48.7 to 63.7
PPV, %	51.9	37.7	57.6
95% CI	45.6 to 58.1	27.2 to 49.5	50.1 to 64.8
NPV, %	86.6	88.6	83.8
95% CI	82.1 to 90.2	82.8 to 92.5	75.8 to 89.5

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