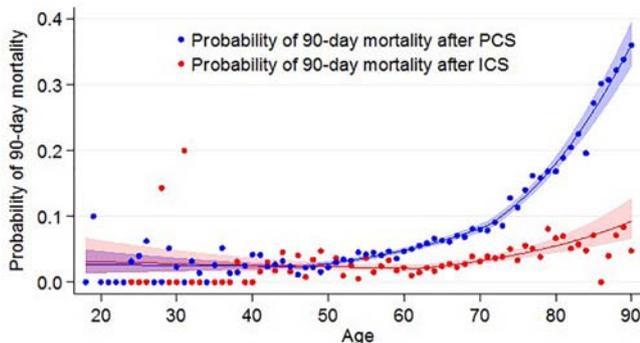ovarian cancer, treated in Commission on Cancer accredited hospitals in the United States between 2004-2013. We fit logistic joinpoint models to quantify the probability of 90-day postoperative mortality as a function of age for women undergoing primary (PCS) and interval (ICS) cytoreductive surgery. We fit separate models to estimate crude and adjusted age-specific relative odds of postoperative death after PCS relative to ICS.

Results: We identified 47,117 of whom 37,024 (78.5%) underwent PCS and 10,153 (21.5%) underwent ICS. Overall, 90-day mortality was more common after PCS (7.2%; 2,658 deaths) than ICS (3.1%; 312 deaths). Age-related trends in 90-day mortality differed between PCS and ICS ($p_{interaction}$ <0.001, see Figure). Women age ≤47 experienced no age-related increase in risk of 90-day mortality after ICS (p =0.36) or PCS (p=0.75). Among women who underwent PCS, the odds of 90-day postoperative mortality began rising at age 47, increasing by 5.7% per year (95% CI 5.0-6.5, p<0.001) until age 71, and by 9.9% per year (95% CI 8.8-10.9; p<0.001) thereafter. In contrast, odds of 90-day mortality after ICS began to increase at age 62, and increased steadily by 5.7% per year (95% CI 3.9-7.5, p<0.001). By age 75 the probability of 90-day postoperative mortality after ICS was 4.2% (95% CI 3.6-4.9) compared with 12.3% after PCS (95% CI 11.4-12.7). By age 85 these probabilities increased to 7.2% (95% CI 5.5-9.2) and 26.0% (95 CI 24.1-27.9) respectively.

Conclusions: Women undergoing PCS incurred an age-related risk of postoperative mortality at a younger age, and to of a greater magnitude, than those undergoing ICS. Among older women, NACT may reduce the frequency on unbeneficial cytoreductive surgery.

	<50	50-59	60-69	70-79	80+
Primary cytoreductive surgery, n	6,342	9,764	10,721	7,540	2,657
Interval cytoreductive surgery, n	1,225	2,500	3,302	2,429	697
Crude odds ratio of 90-day mortality (95% CI)	0.9 (0.6-1.3)	1.7 (1.3-2.3)	2.8 (2.2-3.7)	2.9 (2.3-3.6)	4.7 (3.3-6.7)
Adjusted odds ratio of 90-day mortality (95% CI)	1.0 (0.6-1.4)	2.0 (1.4-2.8)	3.2 (2.4-4.3)	3.1 (2.5-4.0)	4.3 (3.0-6.1)

Observed age-specific probabilities of 90-day mortality after primary cytoreductive surgery (blue dots) and interval cytoreductive surgery (red dots) are plotted along with predicted probabilities (solid lines) and 95% confidence intervals (shaded areas) from piecewise joinpoint regression models. The number of operations, as well as crude and adjusted odds ratios for 90-day mortality after primary cytoreductive surgery, relative to interval debulking surgery, are tabulated by age group. Adjusted odds ratios are adjusted for year of diagnosis, histologic type, grade, stage, comorbidity index, geographic region, insurance type, hospital volume, and cancer program.

PCS: primary cytoreductive surgery. ICS: interval cytoreductive surgery. CI: confidence interval.

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Poster #26
Survey of practice patterns regarding the use of minimally invasive surgery for the treatment of ovarian cancer
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Objectives: The objective of this study was to assess the practice patterns of gynecologic oncologists regarding the use of minimally invasive surgery (MIS) for the treatment of ovarian cancer.

Methods: An electronic survey using REDCap was sent to all physician members of the Society of Gynecologic Oncologists. Responses were confidential with no identifying information collected from participants. Statistical analysis was descriptive in nature. Study approved by the authors' home Institutional Review Board.

Results: There were 234 responses to the survey. Most respondents were part of an academic practice (64.7%) that trained fellows (53.3%) or residents (94%). Practice location was evenly distributed throughout the United States. Number of female and male respondents was evenly split. The vast majority of respondents (88%) reported performing more than half of all surgeries using MIS with 44.4% performing more than three-quarters of all surgeries using MIS. The most common procedures currently performed using MIS were: hysterectomy (98.3%), lymphadenectomy (95.7%), omentectomy (90.1%), appendectomy (88.5%), and radical hysterectomy (84.5%). Several respondents were currently performing advanced procedures laparoscopically with many others interested in performing these procedures in the future: cytoreductive surgery (34.8%, 16.7%), splenectomy (15.1%, 30.6%), diaphragmatic stripping (18.1%, 26.3%), bowel resection and reanastomosis (19.7%, 42.5%), and low anterior resection (16.7%, 39.1%). Three-quarters (74.8%) of respondents reported currently using MIS for the treatment of ovarian cancer with diagnostic laparoscopy (90.1%), primary staging (76.7%), and interval cytoreductive surgery (72.7%) being the most common procedures performed. The most common cited benefits of MIS for the treatment of ovarian cancer included decreased blood loss (65.1%), decreased hospital LOS (81.2%), and decreased morbidity (76.9%). The most common cited barriers to the treatment of ovarian cancer with MIS included leaving residual disease behind (84.1%) and lack of scientific validation for MIS compared to laparotomy (58.0%).

Conclusions: Minimally invasive surgery is currently being used regularly for the treatment of ovarian cancer. Interest among gynecologic oncologists to perform more advanced surgical procedures in the setting of ovarian cancer via minimally invasive routes is high. Our findings underscore the need to validate the use of MIS in ovarian cancer treatment.

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Poster #27
Opportunistic salpingectomy would significantly reduce ovarian cancer mortality and would reduce overall healthcare expenditures
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Objectives: This study was conducted to determine the cost-effectiveness of opportunistic salpingectomy at the time of tubal ligation and hysterectomy and the impact of this procedure on ovarian cancer mortality.

Methods: A Markov state transition model was constructed including hysterectomy, tubal ligation, and ovarian cancer. Transition probabilities between the states were informed by previously reported population data. This model was used to predict ovarian cancer incidence and mortality with and without opportunistic salpingectomy at tubal ligation or hysterectomy, as well as the costs associated with these procedures.

Results: The recursive Markov model was run from age 20 to 85 in one-year intervals with a half step correction and included age adjusted rates of tubal ligation, hysterectomy (with and without