Title

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Scientific Plenary VI: Approaches to Improve Quality and Palliative Care in Gynecologic Cancers
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2:30 p.m.–3:30 p.m., Ballroom B-C
Moderator: Monique A. Spillman, MD, University of Colorado Denver, Aurora, CO

107 – Scientific Plenary
Hospital readmission (30-day) following surgery for advanced-stage ovarian cancer: Analysis of risk factors and cost using the SEER-Medicare database

R. Eskander[1], J. Chang[2], A. Ziogas[2], H. Anton-Culver[2], R.E. Bristow[2].
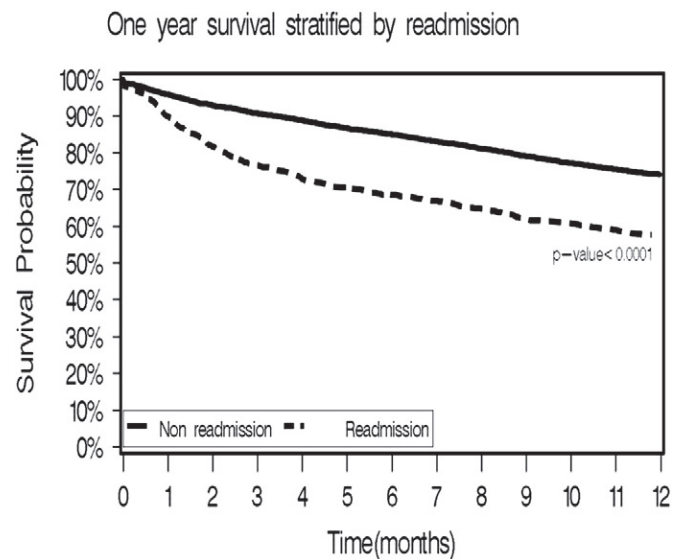[1]*University of California at Irvine Medical Center, Orange, CA, USA*
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Objectives: The aim of this study was to analyze risk factors for and costs associated with 30-day readmission after surgery for advanced-stage ovarian/primary peritoneal/fallopian tube cancer.

Methods: The Surveillance, Epidemiology and End Results — Medicare (SEER-Medicare) linked database (1992–2010) was used to evaluate readmission rates within 30 days of index surgery in patients 66 years of age and older with stage IIIC/IV ovarian/primary peritoneal/fallopian tube cancer. Multivariate logistic regression was used to identify predictors of readmission. Odds ratios (OR) were adjusted for multiple factors. Total cost of hospital stay was calculated and inflation adjusted, presented in 2010 dollars.

Results: Of 5152 eligible subjects discharged after index surgery, 888 (17.2%) were readmitted within 30 days of discharge. Mean patient age was 75 years, and the majority of patients (66.4%) had a Charlson co-morbidity score of 0. Readmission was related to surgical complications in <1% of patients. The most common diagnosis associated with readmission included, infection (34.7%), dehydration (34.3%), ileus/obstruction (26.2%), metabolic/electrolyte derangements (23.1%) and anemia (12.3%). In multivariate analysis, year of discharge was significantly associated with 30-day readmission (1996–2000 HR 1.32 95% CI 1.01–1.71; 2001–2005 HR 1.58 95% CI 1.24–2.0; 2006–2010 HR 1.73 95% CI 1.35–2.21; Referent years 1992–1995). Additionally, length of index hospital stay > 8 days (HR 1.39; 95% CI 1.18–1.64), and discharge to skilled nursing facility (HR 1.3; 95% CI 1.04–1.63) were significant predictors of 30-day readmission in multivariate analysis. When compared with patients not readmitted, those readmitted within 30 days had a significantly greater 1-year mortality (41.1% vs 25.1% respectively; p < 0.0001). The median cost of readmission hospital stay was $9220 ± $14,296, with a total cost of $9.3 million over the study period ($513,758/year).

Conclusions: Early readmission following surgery for ovarian cancer is common and due in part to modifiable factors. There is a significant association between 30-day readmission and 1-year mortality. These findings may catalyze development of targeted interventions to decrease early readmission, improve patient outcomes and control health care costs.

One year survival stratified by readmission