### Conclusions and Discussion

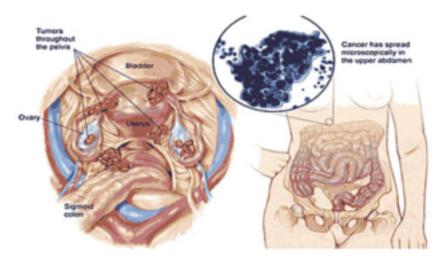
The ability of the surgeon to achieve complete or optimal cytoreduction has been shown to be the strongest indicator for increased DFS and decreased mortality. The literature shows that the experience of the surgeon is the most important factor in achieving this outcome.

# The surgical volume and clinical expertise at John Muir Health has yielded the following results:

- Eighty-nine percent rate of complete and optimal cytoreductions
- Two reported surgical mortality
- High rate of preservation of bowel continuity

#### These indicators show that our program is likely to:

- Increase the quality of life
- Increase the time in remission
- Decrease disease-specific mortality for our patients



Accessed from www.gettingcancer.com/ovarian-cancer.html | July 12, 2010

#### References

Bristow RE, Tomacruz RS, Armstrong DK, Trimble EL and Montz FJ (2002). Survival effect of maximal cytoreduction surgery for advanced ovarian carcinoma during the platinum era: a meta-analysis. Journal of Clinical Oncology,

#### 20(5), 1248-1259.

Hennessy BT, Coleman RL and Markman M (2009). Ovarian Cancer. Lancet, 374(9698), 1371-1382.

Mercado C, Zingmond D, Karlan BY, Sekaris E, Gross J, Maggard-Gibbons M, Tomlinson JS and Ko CY (2010). Quality of care in advanced ovarian cancer: The importance of provider specialty. Gynelogic Oncology 117, 18-22.

Olaitan A, Weeks J, Mocroft A, Smith J, Howe K and Murdoch J (2001). The surgical management of women with ovarian cancer in the south west of England. British Journal of Cancer, 85(12), 1824-1830.

Zivanovic O, Sima CS, Iasonos A, Hoskins WJ, Pingle PR, Leitao MMM Jr., Sonoda Y, Abu-Rustum NR, Barakat R and Chi DS (2010). The effect of primary cytoreduction on outcomes of patients with FIGO stage IIIC ovarian cancer stratified by the initial tumor burden in the upper abdomen cephalad to the greater omentum (2010). Gynecolic Oncology 116, 351-357.



# Epithelial Ovarian, Primary Peritoneal & Fallopian Tube Cancer Cytoreduction

Quality Improvement and Outcomes Evaluation in Women



# Ovarian, Primary Peritoneal & Fallopian Tube Cancer Cytoreduction

#### Quality Improvement and Outcomes Evaluation in Women

Babak Edraki MD and Carolyn Berson RN MSN John Muir Health Cancer Institute, Walnut Creek, CA Amy Elizabeth Parker RN MA University of California, San Francisco, School of Nursing

# Background

The current gold standard for treatment of ovarian, primary peritoneal and fallopian tube cancers is cytoreductive surgery followed by intravenous and/or intraperitoneal chemotherapy (Hennessy 2009). Studies have decisively shown that the outcomes of progression free survival (PFS) and overall survival (OS) have a direct correlation with complete removal of visible diseased tissue (complete cytoreduction) or removal of diseased tissue to <1cm (optimal cytoreduction) (Bristow 2002, Zivanovic 2010). It has also been demonstrated that achieving complete or optimal cytoreduction has a strong correlation with the specialization of the surgeon and the volume of cases seen per year (Olaitan 2001). In addition to survival outcomes, the quality of the woman's life post-surgically can be greatly affected. The experience of the surgeon not only has been shown to affect survival and disease progression but also can result in a much lower percentage of patients requiring ostomies and subsequently maintaining normal bowel function (Mercado 2010). This reduces the burden on the patient post-surgically and can have a positive impact on body image and returning to normal activities.

## Purpose

The study discussed here has collected eight-years (July 2007-December 2014) of surgical outcome data for women with epithelial ovarian, primary peritoneal and fallopian tube cancers undergoing cytoreductive surgery at John Muir Health. This analysis is to monitor if our program is achieving outcomes that have been shown to be directly related to progression free survival (PFS) and overall survival (OS) in the literature. Therefore, complete or optimal cytoreduction will be used as a surrogate end-point.

# Demographics

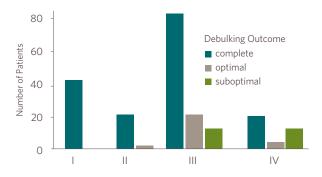
Diagnosis:
epithelial ovarian cancer 178
fallopian tube cancer 34
peritoneal cancer 18

\* Excludes 27 neoadjuvant patients

# Methods and Design

A consecutive sample of women less than eighty-years old with primary ovarian, peritoneal or fallopian tube cancer were admitted for cytoreductive surgery at John Muir Health. Data collected included age, diagnosis, disease stage, cytoreductive outcome, ostomy creation and complications collected prospectively.

# Evaluation of Debulking Outcomes by Cancer Stage



### Results

Two hundred thirty women with a mean age of sixty-three years old (standard deviation seventeen years) were included in the data collection. There were 42 women with stage I disease, 23 with stage II disease, 119 with stage III disease and 46 with stage IV disease. Complete cytoreduction with no visible residual disease was achieved in seventy four percent of the surgeries, optimal reduction to <1cm was achieved in fifteen percent of patients and suboptimal results to >1cm, in patients where complete cytoreduction was not safely possible, represented eleven percent of the patients. In patients requiring resection of the bowel ninety seven percent of cases were able to have the bowel reanatomosed and in only three percent of the cases was it necessary for an ostomy to be created.

