Mar 24th, 11:00 AM - 11:50 AM

The Princess Margaret Cancer Center Target Ovarian Cancer Program

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Target Ovarian Cancer Program (TOCP): Systematic identification of high-risk women for ovarian cancer prevention

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Ovarian cancer is the 5th leading cause of cancer-related death in Canadian women and is the most lethal cancer of the female reproductive tract [1]. 1 in 5 women with the most common form of ovarian cancer, high-grade serous carcinoma (HGSC), have an inherited mutation in the *BRCA1* or *BRCA2* genes [2−3]. Due to the strong link between *BRCA1/2* and HGSC, the Ontario Ministry of Health and Long-Term Care released recommendations in 2001 that made all women with serous epithelial ovarian cancer eligible for *BRCA1/2* testing. In the following decade only ~20% of eligible patients were referred [4], resulting in up to 2000 women in Ontario with inherited *BRCA1/2* mutations who have not been identified and are unaware of their high risk for deadly ovarian cancer. The purpose of this initiative is to identify these women who carry *BRCA1/2* mutations and other risk genes through genetic testing and provide the opportunity to prevent ovarian cancer by risk-reducing surgery [5−7].

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Pilot Initiative: Fill the Gap

I. Education campaign
II. Panel-based germline testing of female first degree relatives ➔ detect mutations in *BRCA1/2* (recommend risk-reducing surgery) + new risk genes
III. Grow high-risk cohort/research infrastructure
IV. Build case for shift in OMHLTC criteria/panel-based testing

Impact: Research in High-Risk Population

I. Psychosocial impact and barriers to genetic testing & risk-reducing surgery
II. Genotype-phenotype studies in new risk genes
III. Optimal targeted prevention strategies based on mutation status
IV. Long-term follow-up

Impact: Shift in Clinical Paradigm

I. Systematic genetic testing & targeted prevention
II. New models of genetic counselling
III. Work with Cancer Care Ontario & Ontario Ministry of Health (OMHLTC) to impact policy/knowledge translation

Detect inherited cancer predisposing mutations, ***Diagnose*** increased cancer risk,
Target mutation carriers for risk-reducing surgery & ***Support*** families throughout the process

TOCP website - www.preventovariancancer.ca

The Princess Margaret Cancer Centre
Target Ovarian Cancer Program

References: 1. Kurman RJ et al. Am J Surg Pathol. 2010 Mar;34(3):433-43. 2. Zhang S, et al. Gynecol Oncol. 2011 May 1;121(2):353-7. 3. Schrader et al. Obstet Gynecol. 2012 Aug; 120 (2 Pt 1):235-40. 4. Metcalfet et al. Gynecol Oncol. 2009 Jan; 112(1):68-72. 5. Kwon JS et al. Obstet Gynecol. 2013 Jan;121(1):14-24. 6. Pennington KP et al. Gynecol Oncol. 2012 Feb;124(2):347-53. 7. Pal T et al. Br J Cancer. 2012 Nov 6;107(10):1783-90.