

Implementation of a quality improvement project for universal genetic testing in women with ovarian cancer.

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BACKGROUND:

The National Comprehensive Cancer Network (NCCN) recommends all women with ovarian cancer be offered genetic testing. Referrals to genetic counseling and completion of genetic testing among patients at substantial risk of germline mutations are significantly lacking, adversely affecting patient care and squandering an opportunity to maximize cancer prevention efforts. This project determined the impact and feasibility of implementing a basic model for universal referral to genetic counseling and completion of genetic testing in women with a diagnosis of ovarian cancer in an academic gynecology oncology practice with access to electronic health records.

METHODS:



1) **Increase provider engagement:** Providers in our practice received a review of the rationale behind universal genetic testing and the current NCCN and Society of Gynecologic Oncology guidelines recommending genetic testing for all women with non-mucinous epithelial ovarian, tubal and peritoneal cancers. Review of the guidelines ensured that all providers would be able to initiate the discussion and the counseling for patients with applicable diagnoses.



2) **Efficient Electronic Health Record (EHR) utilization:** Our team created an electronic “smart phrase” (a quickly accessible standardized text) for use in the EHR. This “smart phrase” when added to a clinical encounter efficiently documented that the rationale behind genetic testing was reviewed and that the genetic counseling recommendation was made. The “smart phrase” standardized and simplified documentation which was well received by providers.



3) **Increase patient education:** Patient education regarding the role of genetic testing at the time of their diagnosis began as early as their initial consultation visit. An electronic “smart phrase” was also created for patient instructions. This text included the explanation of the rationale and benefits of seeking genetic counseling and testing in lay language and was added to all patient after visit summaries.

METHODS (continued):



4) **Scheduling ease:** Scheduling of the genetic counseling appointment at the time of patient check out (point of care) from the gynecology oncology clinic was initiated to avoid delay in scheduling appointments and facilitate a patient centered experience. Previously, patients were referred to genetic counseling but were called on a later date by the genetics clinic to schedule the consultation. We found among our patients that this delay in scheduling created a disconnect between the provider recommendation and the actual appointment. Patients often forgot the importance and rationale behind the recommendation for genetic counseling and testing leading to many patients declining the appointment.



5) **Tumor Board Conference:** Documentation is updated in Tumor Board to include whether genetic counseling was recommended, pending or completed as a part of all treatment recommendations for ovarian cancer patients. Tumor Board notes were made more comprehensive by including the recommendation for genetic testing in the final recommendations for applicable patients and were part of the patient’s EHR. Genetic counselors also regularly attend and participate in our Tumor Board conferences.

RESULTS:

Table 1. Patients with ovarian cancer eligible for genetic testing

	Pre- Implementation 01/2008-11/2013 n (%)	Post- Implementation 12/2013-11/2016 n (%)
Total Patients Meeting Criteria	207	125
EHR Documentation	36 (17%)	110 (88%)
Referral Placed to Genetic Counseling	42 (20%)	123 (98%)
Genetic Counseling Completed	64 (31%)	109 (87%)
Genetic Testing Completed	54 (26%)	104 (83%)
Patients with Identified Gene Mutations	12 (8%)	23 (18%)

RESULTS (continued):

Table 2. Post implementation missed opportunities

	No. of Patients
Deceased	4
Never scheduled appointment	2
Cancelled appointment	4
Genetic counseling appointment pending	2
Declined testing after genetic counseling	5
Transferred care	2
Insurance denial	1

CONCLUSIONS:

- Oncology providers have a pivotal role to play in establishing universal genetic testing as the norm in their practice in treating women with ovarian cancer. How to accomplish this may take several different forms.
- We demonstrate the process change model we utilized to address several of the known barriers to the uptake of genetic testing.
- Simple and low-cost interventions aimed at increasing standardization, efficiency and knowledge were found to be acceptable to both providers and patients and formed the foundation of this process change model for universal testing in our practice.
- The results were sustained over the course of several years which demonstrates the ability for this to be a durable change.
- Continued efforts still need to be directed towards increasing cancer predisposition testing.
- The dilemma of how to best accomplish cascade testing in family members is especially challenging.

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