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Genetic counseling and testing rates among community cancer programs for patients with breast cancer following site-directed quality improvement

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BACKGROUND

- National Comprehensive Cancer Network (NCCN) guidelines recommend testing for highly penetrant hereditary breast/ovarian cancer (HBOC) genes in several clinical scenarios, including women with early-onset (≤ 45 years) or metastatic HER-2 negative breast cancer regardless of family history.
- A 2018 Association of Community Cancer Centers (ACCC) survey (N=95) showed that > 80% of respondents reported ≤ 50% testing rate of patients with breast cancer who met guidelines.
- Given this disconnect, ACCC partnered with 15 community cancer programs to assess practice gaps and support interventions to improve genetic counseling (GC)/testing.

OBJECTIVE

- To increase rates of GC and guideline-concordant BRCA testing for patients with breast cancer in community cancer programs through quality improvement (QI) initiatives.

METHODS

- Pre- and post-intervention data from 9/15 partner programs for women with early-onset or HER-2 negative metastatic breast cancer (MBC) were analyzed.
- Pre-intervention data were collected between 01/01/2017 and 06/30/2019.
- Post-intervention data were collected as early as 07/01/2019 and as late as 10/01/2020.
- QI project scope ranged from creation and dissemination of testing eligibility education to implementation of a fully virtual GC clinic.
- De-identified data collected included: family history documentation; GC appointment; test results; and timing of results relative to surgical date.

CONCLUSIONS

- Genetic testing is underutilized in women with breast cancer.
- Significant improvement in GC/testing was achieved with QI initiatives specifically designed to target easily identified populations eligible for GC/testing based on NCCN guidelines.
- This project demonstrates the importance of practice-directed strategies aimed at improving identification of risk as well as follow through to GC/testing.
- Further work is needed to understand decisions regarding genetic testing and the timing of said testing on surgical decision making.
- Opportunities exist to examine additional facilitators and barriers to community-based genetic services to increase access to guideline-based GC/testing.

AUTHOR CONTACT INFORMATION

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Scan this QR code for more information on this project and to download the poster. Or visit www.accc-cancer.org/BRCA.

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RESULTS

	PRE-QI	POST-QI	P value
HBOC high risk based on family history	48%	56%	0.0001
Family high risk with GC appt	57%	85%	0.0001
Not family high risk with GC appt	23%	40%	0.0001
Unknown family risk with GC appt	6%	45%	0.0001
Age 45 or younger			
Had genetic counseling appt	72%	83%	0.001
Date of test results documented	49%	74%	0.0001
Test results arrived after surgery	16%	8%	0.02
HER-2 negative			
HER-2 negative	69%	83%	0.0001
HER-2 negative patients with GC	36%	61%	0.0001
HER-2 negative patients with genetic test results	15%	55%	0.0001

The pre-intervention cohort included 2691 women and the post-intervention cohort included 3104 women who were eligible for GC based on NCCN guidelines.

Rates of GC appointments improved overall, regardless of family history documentation. GC appointment rates among those with a documented high-risk family history improved from 57% (729/1284) to 85% (1485/1741) following QI interventions (p=0.0001). There was also a significantly higher rate of GC provided in the post-intervention group among women with suggestive personal but negative family histories (40% (462/1155) versus 23% (181/778); p=0.0001). Further, GC increased from 6% (35/629) to 45% (94/208) of women in the post-intervention at-risk cohort with no documentation of family history (p=0.0001).

Patients with early-onset breast cancer were more likely to attend a GC appointment (p=0.001) and receive genetic test results (p=0.0001), with 92% (271/296) receiving results before surgery, after a targeted QI initiative.

Sixty-one percent (1387/2267) of women with HER-2 negative breast cancer in the post-intervention group received GC, compared to 36% (658/1845) in the pre-intervention group. There was an overall increase in the number of HER-2 negative breast cancer patients with documented test results following GC in the post-intervention cohort (55% (1243/2267) versus 15% (273/1845); p=0.0001).

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