Background

- ACS, ACOG, ACR, ASBrS, NCCN, and USPSTF recommend cancer risk assessment and hereditary cancer genetic testing for appropriate individuals.
- Previous work found approximately 24% of unaffected patients in a community OB/GYN setting met national guidelines for hereditary cancer testing.

OBJECTIVES

- Determine percentage of unaffected patients meeting updated genetic testing criteria.
- Outline breast cancer risk assessment and genetic test results.
- Delineate percentage of patients in whom management changes would be recommended based on a personalized assessment of breast cancer risk.

Methods

- A hereditary cancer risk assessment focused process-intervention study was conducted at five community OB/GYN practice sites from July 2021 to November 2022.
- Patients who met guideline criteria and agreed to proceed with testing were provided germline genetic testing using the MyRisk multigene hereditary cancer panel.
- Additional breast cancer risk stratification was performed with the Tyrer-Cuzick (IBIS) breast cancer risk evaluation tool v7 and with RiskScore.
- Descriptive statistics were used for the analysis.

Figure 1: Methods

Table 1: Breast Cancer Risk Stratification

<table>
<thead>
<tr>
<th>Post Intervention Period N = 367</th>
<th>RiskScore Estimated Lifetime Risk of Breast Cancer N (% of total)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 20%</td>
</tr>
<tr>
<td>Tyrer-Cuzick Estimated Lifetime Risk of Breast Cancer N (% of total)</td>
<td>233 (63.5)</td>
</tr>
<tr>
<td>≥ 20%</td>
<td>49 (13.4)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>282 (76.8)</td>
</tr>
</tbody>
</table>

36.5% of those not carrying a pathogenic variant had a calculated lifetime breast cancer risk of ≥20% as determined by Tyrer-Cuzick and/or RiskScore.

Conclusions

- More than one quarter of patients seen in the community OB/GYN setting met national guideline criteria for hereditary cancer genetic testing.
- 3.2% of tested patients carried a pathogenic variant.
- More than one-third of patients not carrying a pathogenic variant were still at elevated risk for breast cancer and would warrant consideration for medical management change.
- Incorporating routine hereditary cancer and comprehensive breast cancer risk assessment in community OB/GYN practice provides an opportunity to identify patients at elevated risk for breast and other cancers and to tailor medical management to the appropriate risk level of the patient.

Results

- More than one quarter of patients seen in the community OB/GYN setting met national guideline criteria for hereditary cancer genetic testing.
- 3.2% of tested patients carried a pathogenic variant.
- More than one-third of patients not carrying a pathogenic variant were still at elevated risk for breast cancer and would warrant consideration for medical management change.
- Incorporating routine hereditary cancer and comprehensive breast cancer risk assessment in community OB/GYN practice provides an opportunity to identify patients at elevated risk for breast and other cancers and to tailor medical management to the appropriate risk level of the patient.