Florida-based Inherited Cancer Initiatives in Young Black Women with Breast Cancer

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APHA Genomics Forum and Genetic Alliance webinar Series
Hosted by Oregon Health Authority

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Overview of Recruitment

Genetic Testing Prior to Study Enrollment (~1/3 of sample)

Factors Associated with BRCA Testing Prior to Study Enrollment (~1/3 of sample)

Genetic Counseling/Testing Predating Study Enrollment

Objectives

Recruit a population-based sample of Black women diagnosed with invasive breast cancer <50 in 2009-2012 in Florida in order to:

• Estimate access to BRCA testing services (prior to study participation)
• Identify BRCA mutations

Breast Cancer in Young Black Women

• Young Black women compared to White women have:
  • Higher incidence of breast cancer
  • Higher mortality from breast cancer
  • One of the hallmarks of BRCA1/2-associated breast cancer is young age of onset
  • Thus, BRCA1/2 may account for a proportion of breast cancers in young Black women

Young Black women compared to White women have a:

• Higher incidence of breast cancer
• Higher mortality from breast cancer

– Refer ~ Attend ~ Test

Yes n=224 (51%)

Secure Informed Consent secured/Medical Record

• Identify BRCA1/2 mutations

Genetic Counseling Session/Specimen collection

APHA Genomics Forum and Genetic Alliance webinar Series

For participants that are interested, enrollment

Patient information obtained from FCDS (Florida State Cancer Registry)

Informational package sent to potential participants

For participants that are interested, enrollment package sent

Secure Informed Consent secured/Medical Record

Release signed/Questionnaire completed

Genetic Counseling Session/Specimen collection

BRCA testing (full sequencing, MLPA)

• Thus, associated breast cancer is young age of onset

Black women Black women

BRCA1/2

<35 years of age Per 100,000

10 responses from Black women aged 25-34 with breast cancer
Age-Stratified Mutation Frequencies
28 BRCA mutations in 284 participants

<table>
<thead>
<tr>
<th>Age Group</th>
<th>BRCA1/2</th>
<th>BRCA1 only</th>
<th>BRCA2 only</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤50</td>
<td>9.9%</td>
<td>6.3%</td>
<td>3.5%</td>
</tr>
<tr>
<td>≤45</td>
<td>12.0%</td>
<td>8.2%</td>
<td>3.8%</td>
</tr>
<tr>
<td>≤40</td>
<td>14.7%</td>
<td>11.8%</td>
<td>2.9%</td>
</tr>
<tr>
<td>≤35</td>
<td>22.0%</td>
<td>18.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

BRCA Mutations (~10% of sample)

Other results of our research efforts:

- Breast Cancer Advocates
- Breast Cancer Researchers
- Breast Cancer Survivors
- Breast Cancer Champions

Initiation of Outreach/Education

Development of culturally appropriate recruitment materials

Study Brochure  Lay Brochure

Study Genetic Counseling Aid  General Genetic Counseling Aid

Current B-GREAT Outreach and Education Projects

- Brochure Dissemination
- Website Development (www.bgreatinitiative.org)
- Attendance at Community Events
- FL Breast Cancer Support Group Directory (large proportion of support groups added based on input from CAF)

Lay Brochure

>19,000 disseminated to date
Funding

- Efforts primarily funded through external peer-reviewed research grants
  - Komen for the Cure
  - Florida Biomedical
  - American Cancer Society
- Sole grant focused on outreach/education
  - small grant from Florida Breast Cancer Foundation
- Other potential funding sources:
  - Komen outreach grants
  - CDC
  - Local foundation grants

Relationships to ongoing programs:

- Michigan has shared:
  - Tool to identify high risk HBOC patients (wheel)
  - NCHPG Module on HBOC
- Materials we have shared:
  - Black women’s brochure: requested by Michigan, Oregon, Georgia

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  BEST Team
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Community Advisory Panel:
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