

**Breast  
Imaging  
Center  
Risk Assessment  
Genetics**

## Roles & Responsibilities – Breast Imaging Center

Role	Competencies	Task	Productivity Measures
Registrar/Front Desk	Women's Imaging registration experience	<ul style="list-style-type: none"> <li>• Experience with patient registration</li> <li>• Competent in scripting and answering questions regarding assessment</li> <li>• Knowledgeable about the purpose and methodology of the assessment</li> </ul>	1-2 minutes additional time to answer questions and ensure completion.
Mammography Tech	Mammography certification	<ul style="list-style-type: none"> <li>• Competent in answering questions regarding assessment</li> <li>• Knowledgeable about the purpose and methodology of the assessment</li> <li>• If manual process, enters responses into electronic system, prints out results and enters into RIS system.</li> </ul>	5 minutes to enter responses into electronic system, prints out results and enters into RIS system.
Radiologist	Radiologist with experience in breast	<ul style="list-style-type: none"> <li>• Include the following information in the mammography report:</li> <li>• Include breast density score</li> <li>• Include Tyrer-Cuzick score</li> <li>• Include genetic risk evaluation, if criteria met</li> <li>• Make high risk recommendation based on results</li> </ul>	<u>1 minute</u> additional time on mammography report.
Breast Imaging Coordinator	<ul style="list-style-type: none"> <li>• Certification from a professional organization for their role as a navigator (NCBC and AONN have comprehensive ones with NCBC offering continuing education)</li> <li>• Healthcare degree (ie, RT, RN)</li> <li>• Training in genetics and high risk</li> <li>• Familiarity with national recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• If manual process, may calculate risk manually and enter into RIS system.</li> <li>• Follow-up by phone with each patient flagged as high risk to do the following: <ul style="list-style-type: none"> <li>• Provides information on risk</li> <li>• Verified history</li> <li>• Insurance verification</li> <li>• Discussed bringing a potential family member to test</li> <li>• Schedule appointment (MRI order or genetic counseling/HR Clinic)</li> <li>• Sends Patient letter</li> </ul> </li> </ul>	5 minutes to calculate risk manually and enter into RIS system. 20-30 minute informational/educational call and follow-up.

**Sarah Cannon High Risk Women’s Program – Criteria for Further Genetic Evaluation**

Updated 03.05.2020

Based on NCCN Guidelines version 1.2020:

**Testing Criteria for High-Penetrance Breast and/or Ovarian Cancer Susceptibility Genes**

- Invasive and DCIS breast cancers should be included as breast cancer
- Close relatives (blood relatives only) include:
  - 1<sup>st</sup> degree** (parents, full siblings, children)
  - 2<sup>nd</sup> degree** (aunts, uncles, grandparents, half-siblings, nieces, nephews)
  - 3<sup>rd</sup> degree** only as noted (first cousins, great grandparents)

**Does the patient or any close relatives have any of the following? Please check all that apply.**

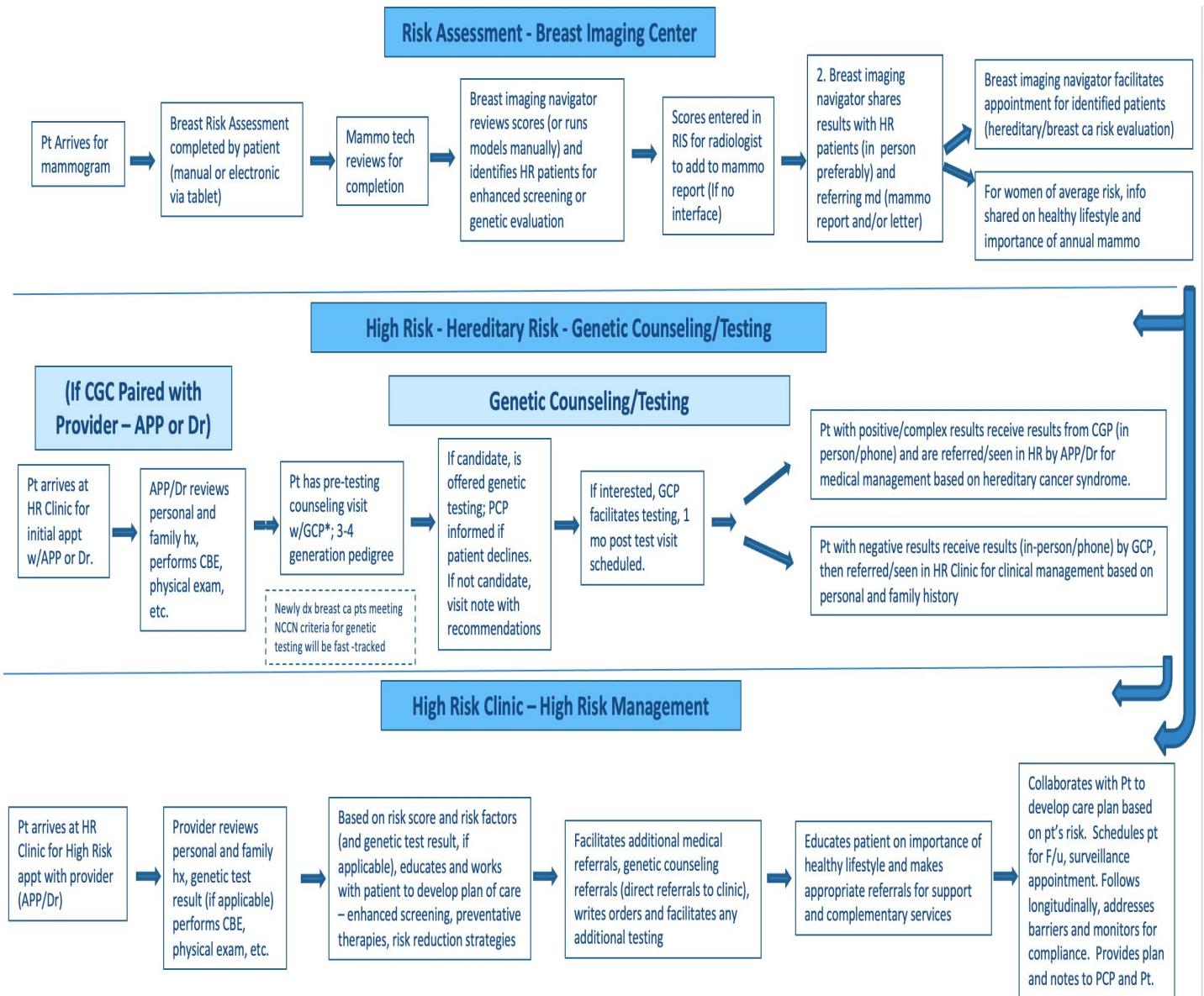
YES

	Breast cancer diagnosed at or before age 50
	Triple negative breast cancer diagnosed at or before age 60
	2 or more separate primary breast cancers in the same individual, the first diagnosed prior to age 65
	Male breast cancer (any age)
	Ovarian cancer, including fallopian tube and primary peritoneal (any age)
	Pancreatic cancer (any age)
	Metastatic prostate cancer (any age)
	Ashkenazi Jewish heritage with a personal or family history of breast or high grade prostate cancer (Gleason score $\geq 7$ )
	2 individuals with breast cancer on the same side of the family, at least one diagnosed at or before age 50
	3 individuals with breast cancer on the same side of the family
	A known mutation in a cancer susceptibility gene ( <i>BRCA1</i> , <i>BRCA2</i> , etc.) within the family, <i>irrespective of degree of relatedness</i>

**A single YES answer meets criteria for referral for genetic counseling.**

*Note: NCCN guidelines are updated frequently. Be sure to implement regular review of the most current version to determine any changes needed to above criteria.*

# Risk Assessment Work-Flow and Care Delivery Models



\*GCP meets professional requirement of CoC 2.3/NAPBC 2.16 genetics standard

## Service Delivery Models for Genetic Counseling/Testing

### Genetic Counseling Service Delivery Models

Model	Description	Best Used When...	Benefits of Model	Barriers/Limitations of Model	Additional Considerations
<b>In-person Genetic Counseling</b>	Genetic counseling services are provided in a private, HIPAA compliant clinic space where the providers meet with the patient face-to-face.	<ul style="list-style-type: none"> <li>An appropriate clinic space is available</li> <li>When market has providers able to see patients at desired location</li> </ul>	<ul style="list-style-type: none"> <li>Relationship building</li> <li>Ability to see physical cues and body language</li> <li>Increased ability to utilize visual aids/educational tools to fullest extent</li> <li>Testing can be ordered same day since sample can be collected at time of appointment</li> </ul>	<ul style="list-style-type: none"> <li>Potentially longer wait times for an appointment</li> <li>Patients may need to travel significant distance depending on market</li> </ul>	<ul style="list-style-type: none"> <li>State Licensure Requirements</li> <li>Billing/Reimbursement</li> </ul>
<b>Telephone-based Genetic Counseling</b>	Genetic counseling services are provided by telephone to the patient.	<ul style="list-style-type: none"> <li>When other options are not readily available</li> </ul>	<ul style="list-style-type: none"> <li>Reduces travel time</li> <li>Decreases wait times</li> <li>Improves access</li> <li>Convenient for patients and providers</li> </ul>	<ul style="list-style-type: none"> <li>Unable to see physical cues and body language</li> <li>Logistics for scheduling and testing</li> <li>No ability to use any visual aids/educational materials to help explain complex concepts</li> </ul>	<ul style="list-style-type: none"> <li>State Licensure Requirements</li> <li>Billing/Reimbursement</li> <li>Some laboratories offer mobile phlebotomy service to collect samples; most can send saliva kit directly to patient's home</li> </ul>
<b>Video-based Genetic Counseling</b>	Genetic counseling services are provided through video service to the patient. The GCP is typically in an urban healthcare facility, and the patient presents to a different (often rural) healthcare facility.	<ul style="list-style-type: none"> <li>When patients have to travel long distances for care</li> <li>When the market is comprised of multiple hospitals and providers of the high risk program are only on-site at one location (with great distances between locations)</li> </ul>	<ul style="list-style-type: none"> <li>Same as telephone but with additional advantage of physical cues, body language and increased ability to build rapport/establish relationship</li> <li>Ability to share documents, pertinent visual aids likely leading to increased patient comprehension</li> <li>Convenient for patients (limited travel time to site)</li> </ul>	<ul style="list-style-type: none"> <li>Logistics for scheduling and testing</li> <li>Technology not available at all locations</li> <li>Technological issues can occur interfering with appointment(s) &amp; rapport</li> <li>Additional staff/training may be needed in order for sample to be properly collected and shipped</li> </ul>	<ul style="list-style-type: none"> <li>State Licensure Requirements</li> <li>Billing/Reimbursement – some state laws have requirements that telemedicine services can only be reimbursed when provided to “rural” areas (this does <b>not</b> apply to areas with large population size but no genetic counselor)</li> <li>Some laboratories offer mobile phlebotomy service to collect samples; most can send saliva kit directly to patient's home</li> </ul>

GCP = Genetic Counseling Provider

#### **References**

Buchanan AH, Rahm AK and Williams JL (2016) Alternate Service Delivery Models in Cancer Genetic Counseling: A Mini-Review. *Front. Oncol.* 6:120.  
 Cohen, SA et al. (2013) Identification of genetic counseling service delivery models in practice: a report from the NSGC Service Delivery Model Task Force. *J. Genet. Couns.* Aug;22(4):411-21.  
 Stoll K, Kubendran S, and Cohen S (2018) The past, present and future of service delivery in genetic counseling: Keeping up in the era of precision medicine. *Am J Med Genet.* 2018;1-14.

## Practitioners for Delivering Genetic Counseling/Testing

### Practitioner Models

Model	Description	Best Used When	Benefits of Model	Barriers/Limitations of Model	Considerations
Internal (in market) Certified Genetic Counselor (CGC)	<ul style="list-style-type: none"> <li>Genetic Counselor receives referrals directly, independent of High Risk Clinic or designated APP/Physician.</li> <li>CGC communicates with referring physician and patient to make appropriate referrals for follow up care, pending test results.</li> </ul>	<ul style="list-style-type: none"> <li>High Risk Clinic/APP model not yet fully developed.</li> </ul>	<ul style="list-style-type: none"> <li>Allows programs to have genetic counseling/testing services available to patients while developing High Risk Clinic</li> </ul>	<ul style="list-style-type: none"> <li>Referring physicians assume responsibility for patient management, referral and follow through</li> </ul>	<ul style="list-style-type: none"> <li>Billing/reimbursement - Genetic Counseling CPT code 96040.</li> <li>Reimbursement may vary by market/payer.</li> </ul>
Internal Certified Genetic Counselor (CGC) – Paired with APP	<ul style="list-style-type: none"> <li>Genetic Counselor works with an APP as part of a High Risk Clinic. Ideally, CGC is physically co-located with Clinic.</li> <li>Alternative model is for <b>qualified</b> APPs* to be embedded at remote oncology sites to provide counseling for less complex cases while CGCs see complex patients and follow up via telegenetics</li> </ul>	<ul style="list-style-type: none"> <li>High Risk Clinic/APP in place</li> <li>Depending on credentials/training of APP and capacity of CGC and APP, GC activities can be divided up between the two</li> <li>Patient volumes are high and less complex appointments can be seen by the APP while complex cases and follow up can be done by CGC</li> </ul>	<ul style="list-style-type: none"> <li>Allows for higher patient volumes as two providers are seeing patients</li> <li>Improves wait times</li> </ul>		<ul style="list-style-type: none"> <li>More adequate billing/reimbursement</li> <li>APP bills an E &amp; M code for the visit</li> </ul>
Internal Certified Genetic Counselor (CGC) – Paired with Physician	<ul style="list-style-type: none"> <li>Genetic Counselor works with integrated physician as part of a High Risk Clinic. Ideally, CGC is physically co-located with Clinic</li> <li>Alternative model is for <b>qualified</b> integrated physicians* to be embedded at remote oncology sites to see less complex cases while CGCs see complex patients and follow up via telegenetics</li> </ul>	<ul style="list-style-type: none"> <li><b>Qualified</b> physician in place. Physician utilizes CGC as needed for consulting and genetic counseling services.</li> </ul>	<ul style="list-style-type: none"> <li>Allows for higher patient volumes as two providers are seeing patients</li> <li>Improves wait times</li> </ul>		<ul style="list-style-type: none"> <li>More adequate billing/reimbursement</li> <li>Physician bills an E &amp; M code for the visit</li> </ul>
External Genetic Counseling Provider Service - Laboratory	<ul style="list-style-type: none"> <li>Genetic counseling services are provided by a laboratory genetic counselor (typically by phone consultation)</li> </ul>	<ul style="list-style-type: none"> <li>Genetic counselor access does not exist for a market</li> <li>As a temporary solution/to provide justification for on-site development of genetic counseling services</li> </ul>	<ul style="list-style-type: none"> <li>Patients have access to genetics services when otherwise they would not</li> <li>Is typically "free"</li> </ul>	<ul style="list-style-type: none"> <li>Limited to testing through one specific laboratory (one size does not fit all), may not be best fit for patient</li> <li>Potential for fragmentation of services</li> <li>Health system doesn't have benefit of on-site GC expertise</li> <li>Challenges with who will order test and manage patient post-test</li> </ul>	<ul style="list-style-type: none"> <li>Must rely laboratory's schedule which may not coincide with patient's needs</li> </ul>
External Genetic Provider - Consulting Company	<ul style="list-style-type: none"> <li>Genetic counseling services are provided by a genetic counselor not affiliated with any specific laboratory (typically offered by phone or by video)</li> </ul>	<ul style="list-style-type: none"> <li>Genetic counselor access does not exist for a market</li> <li>As a temporary solution/to provide justification for on-site development of genetic counseling services</li> </ul>	<ul style="list-style-type: none"> <li>Provider at company can discuss testing offered by different laboratories (not just one) and right fit can be found for patient</li> </ul>	<ul style="list-style-type: none"> <li>Cost of service to the hospital/market and/or to the patient (ex: InformedDNA)</li> </ul>	

\* All practitioners providing genetic counseling must meet the professional requirements as outlined by CoC Standard 2.3, NAPBC Standard 2.16