

## Department of Clinical Genetics at CHI, at Crumlin and St James's Cancer Genetic Service: Joint Criteria for BRCA1/2 cancer susceptibility gene testing

- SJH, CGS – accepts referrals of adults with cancer
- DCG, CHI, Crumlin – accepts referrals of adults and children with cancer
- Referrals are accepted from general practice and consultants in all specialities
- BRCA1/2 Genetic Testing of *unaffected* adults (predictive/cascade testing) is only available when a pathogenic BRCA1/2 mutation has already been identified in an affected family member
- In general, genetic testing is offered in Specialist Genetic Clinics to an individual *affected* with cancer whose combined personal and family history of cancer, has a combined BRCA1 and BRCA2 mutation carrier probability of 10% or more. This equates to a Manchester Score of  $\geq 15$ .

### Criteria for diagnostic BRCA1/2 testing:

<i>Affected individual with:</i>	<i>Comments:</i>
<ul style="list-style-type: none"> <li>• Breast cancer (or ovarian, pancreatic, prostate or male breast cancer,) who has relatives with cancer and a Manchester Score <math>\geq 15</math>. (on same side of family)</li> </ul>	Using pathology adjusted Manchester scoring system (MSS3), <a href="#">J Med Genet.</a> 2017 Oct;54(10):674-681 Evans
<ul style="list-style-type: none"> <li>• Breast cancer dx &lt; 30 years</li> </ul>	If nil found on BRCA1/2 testing, then TP53 testing
<ul style="list-style-type: none"> <li>• Breast cancer &lt; 40 years, adopted and no available biological FHx</li> </ul>	Consider offering testing
<ul style="list-style-type: none"> <li>• Triple negative breast cancer <math>\leq 60</math> years</li> </ul>	
<ul style="list-style-type: none"> <li>• Bilateral/double primary breast cancer and both dx &lt; 50 years, irrespective of family history</li> </ul>	<a href="#">J Med Genet.</a> 2010 Aug;47(8):561-6 Evans <i>et al</i>
<ul style="list-style-type: none"> <li>• Ovarian cancer (high grade serous or high grade endometrioid ovarian, fallopian tube or primary peritoneal carcinoma) at any age</li> </ul>	
<ul style="list-style-type: none"> <li>• Male breast cancer who has relatives with cancer and a Manchester Score <math>\geq 15</math></li> </ul>	
<ul style="list-style-type: none"> <li>• Prostate cancer and multiple FDRs (first degree relatives) with prostate cancer (<math>\geq 3</math> FDRs or <math>\geq 2</math> FDRs and both dx <math>\leq 55</math> years)</li> </ul>	<a href="#">Cancer.</a> 2018 Aug 1;124(15):3105-3117
<ul style="list-style-type: none"> <li>• Of Jewish or Polish ancestry AND female breast cancer &lt; 50 years or male breast cancer</li> </ul>	Founder BRCA1/2 mutation test ONLY
<i>Unaffected individual:</i>	<i>Comments:</i>
<ul style="list-style-type: none"> <li>• Of Jewish or Polish ancestry who has a FDR with breast cancer &lt; 50 years OR a FDR with male breast cancer AND a Manchester score <math>\geq 10</math></li> </ul>	AND no living affected family member available for testing, Founder BRCA1/2 mutation screen ONLY