Manchester Scoring System Information Sheet

The Manchester Scoring System (MSS) calculates the probability of pathogenic variants in the *BRCA1* and *BRCA2* genes[1]

This can be helpful when it comes to assessing a person's eligibility for germline genetic testing for inherited prostate cancer (R430)

This information sheet provides a guide for non-genetic specialists to facilitate the calculation of a Manchester Score. It was initially created by Greater Manchester Cancer[2]

Patients with a Manchester Score 15 or more are eligible for germline genetic testing for inherited prostate cancer (R430)

How to calculate a Manchester Score

Review the patient's family history

For each relative with cancer (including DCIS), assign a score based on the relative's age at diagnosis **(see Table 1)**
- If the exact age is unknown, use a best estimate. If there is no information on age assume the affected relative to be 60 years

If a relative has had more than one primary cancer, assign a score for each cancer episode
- These cancers must not be recurrences or secondary cancers

Assess the maternal and paternal side separately - Do not add the scores from both sides of the family together

- Add up the scores for each affected relative with cancer on the maternal (mum's) side
- Add up the scores for each affected relative with cancer on the paternal (dad's) side
- If cancers occurred on both sides of the family, use the lineage with the highest score.

Which relatives to include?
- You can allow <u>one intervening female relative unaffected by cancer</u> in the calculation (i.e. include the score of a second degree relative with BRCA-associated cancer, when the associated female first degree relative is unaffected)

- You can allow <u>more than one intervening female relative, unaffected by cancer, if one of them has had risk reducing surgery at an age less than 50</u> (i.e. if a first degree relative had risk reducing surgery <50yo, an associated second degree relative was unaffected, and the third degree relative had BRCA-associated cancer, then the third degree relative should be included in the scoring)

- Cancers through <u>unaffected male relatives</u> are counted (i.e. if the father is unaffected, but paternal grandmother had BRCA-associated cancer, then the grandmother should be included in the scoring)

Table 1: Scoring system for either maternal or paternal side of family plus your patient

Do calculation twice if cancer is present in both maternal and paternal side

Gender of relative	Cancer	Age at diagnosis	Score	No of family members affected	Calculation
Female	Breast Cancer	<30	11		
	Breast Cancer	30-39	8		
	Breast Cancer	40-49	6		
	Breast Cancer	50-59	4		
	Breast Cancer	>59	2		
Male	Breast Cancer	<60	13		
	Breast Cancer	>59	10		
Female	Ovarian Cancer	<60	13		
	Ovarian Cancer	>59	10		
Any gender	Pancreatic Cancer	Any age	1		
Male	Prostate Cancer	<60	2		
	Prostate Cancer	>59	1		
			Total		

Please note this is a simplified version of the Manchester Scoring System. Further information on the Manchester Scoring System can be found at:

Evans DG, Harkness EF, Plaskocinska I, Wallace AJ, Clancy T, Woodward ER, Howell TA, Tischkowitz M, Lalloo F. Pathology update to the Manchester Scoring System based on testing in over 4000 families. J Med Genet. 2017 Oct;54(10):674-681. doi: 10.1136/jmedgenet-2017-104584. Epub 2017 May 10. PMID: 28490612.

Select the side of the family (paternal or maternal side) with the highest Manchester Score (do not add both sides of the family together)

Patients with a Manchester Score of 15 or more are eligible for germline genetic testing for inherited prostate cancer (R430)

References:
1.Evans et al, 2017. Pathology update to the Manchester Scoring system based on testing in over 4000 families. J Med Genet 54 (10): 674-681
2. https://gmcancer.org.uk/.

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