Process for Treatment Focused (Mainstream) Germline Genetic Testing for Patients with Breast Cancer

Patient with a new diagnosis of breast cancer or being followed up for a previous diagnosis

Eligibility Criteria for Treatment Focused Genetic Testing

An individual who has one or more of :

- Breast Cancer < 40 years
- Bilateral BC, both < 60 years
- Triple negative BC < 60 years
- Breast cancer and ovarian cancer, any age
- Breast cancer and 1 first degree relative with breast cancer, both diagnosed ≤ 45
- Male breast cancer, any age
- Breast Cancer any age with a Manchester score of ≥ 15

Does patient meet eligibility criteria?

YES

ACTIONS BY CANCER TEAM MEMBER

- Genetic testing discussed
- Patient Information Sheet given to patient
- Genetic test request form **completed** (including eligibility criteria)
- Patient SIGNS form

ACTIONS BY CANCER TEAM MEMBER
Send blood sample (3mls EDTA) & Consent (Genetic Test Request Form) to Molecular Genetics Lab, WGH

NO

Is there a reported family history of cancer or further clinical suspicion of an inherited cause for the cancers?

NO → Testing NOT indicated at this time.

YES → Refer to Genetics for Assessment

ACTIONS BY CLINICAL GENETICS TEAM
Referral will be triaged and actioned according to standard referrals procedure

ACTIONS BY LAB TEAM
Results reviewed & interpreted

Result

NO PATHOGENIC VARIANT (no clinically actionable variant)

Report emailed to requesting cancer team

NO PATHOGENIC/ NO CLINICALLY ACTIONABLE VARIANT IDENTIFIED

Actions by cancer clinician

- Result to be given to patient
- Upload result to electronic record.
- If significant cancer family history, consider referral to Clinical Genetics

PATHOGENIC/LIKELY PATHOGENIC VARIANT

Report emailed to requesting cancer team AND Clinical Genetics

PATHOGENIC VARIANT

Actions by cancer clinician

- Result to be given to patient
- Upload result to electronic record.

Actions by Clinical Genetics

- Result letter sent to patient: copied to cancer clinician & GP
- Genetic Appointment arranged

"HOT" VARIANT OF UNCERTAIN SIGNIFICANCE (VUS)

Report emailed to requesting cancer team AND Clinical Genetics

"HOT" VUS

Actions by cancer clinician

- Seek advice from Duty Genetic Counsellor* before giving result to patient
- Upload result to electronic

Actions by Clinical Genetics

- Result letter sent to patient: copied to cancer clinician & GP
- Genetic Appointment arranged

*** Duty Genetic Counsellor: WGH.ClinicalGenetics@nhslothian.scot.nhs.uk**

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