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NHS Foundation Trust

Mainstreaming breast cancer germline genetic panel testing in oncology clinics

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Inherited breast cancer susceptibility

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- Approximately 5-10% of breast cancer is caused by an inherited genetic alteration (1)
- Most commonly within the BRCA 1 or 2 gene but with alterations in other genes such as the PALB2, CHEK2 and ATM genes contributing also

(1) Cancer Research UK, 2022

Impact of identification of a germline genetic risk

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- The possibility of an inherited cause is frequently a concern for patients
- Knowing that there is a genetic alteration can affect management decisions
- Potential influence on choice of primary surgical management
- Potential influence on future screening or preventative surgery
- Emerging potential to affect systemic therapy options, for example, olaparib [(2)]

(2) The OlympiA study, Tutt et al, 2021

Mainstreaming

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- Broadening of criteria for genetic screening for breast cancer susceptibility
- Increase in knowledge and demand globally for genetics services
- Increasing workload for genetics and therefore increasing waiting times
- Delayed testing
- Less streamlined treatment pathways for patients

Benefits to patients

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- Reduced number of separate appointments with different clinical teams
- Often can be counselled alongside treatment and blood test taken within a treatment related attendance
- Testing can be carried out right near the start of their treatment pathway
- For patients undergoing neoadjuvant treatment, results will be available for surgical planning