RECOMMENDATIONS
for testing and treatment of early breast cancer from national guidelines

TESTING RECOMMENDATIONS

Germline *BRCA1/2* mutation testing is recommended by national guidelines

- **NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®): in patients with metastatic or high-risk HER2-negative early breast cancer[1,2]**
- **American Society of Breast Surgeons (ASBrS): in patients with HER2-negative breast cancer[3,4]**

BRCA1/2 mutation testing in patients with HER2-negative breast cancer[2-4]

	WHAT	WHO	WHEN	WHY
NCCN GUIDELINES® Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic[2]	Germline *BRCA1/2*m testing	Patients with a personal history of breast cancer with specific features*	At any age with: • high-risk,† HER2-negative breast cancer‡ • TNBC • metastatic breast cancer§	***Treatment implications for patients with mutations in an adjuvant and/or metastatic treatment setting:*** May inform identification of appropriate candidates for PARPi therapy
ASBrS GUIDELINES[3,4]	Germline *BRCA1* and *BRCA2* testing	All patients with newly diagnosed or with personal history of breast cancer	Within the particular time of surgical decision-making for breast cancer treatment	***Treatment implications for patients with mutations:*** May impact recommendations for surgery, radiation, and systemic therapy for newly diagnosed breast cancer

*Testing is also clinically indicated in patients with specific features based on age, family history, or ancestry.

†The definition of high-risk disease is that used in the Phase III OlympiA trial, which compared adjuvant olaparib to placebo among *BRCA1/BRCA2*m carriers with high-risk disease and includes TNBC treated with adjuvant chemotherapy with axillary node-positive disease or an invasive primary tumor ≥2 cm on pathology analysis, TNBC treated with neoadjuvant chemotherapy with residual invasive breast cancer in the breast or resected lymph nodes, HR-positive disease treated with adjuvant chemotherapy with ≥4 positive pathologically confirmed lymph nodes, and HR-positive disease treated with neoadjuvant chemotherapy that did not have a complete pathologic response with a CPS+EG score of 3 or higher.

‡To aid in adjuvant treatment decisions.

§To aid in systemic treatment decisions using PARP inhibitors.

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BRCA1/2m=breast cancer susceptibility gene 1 and/or 2 mutation; HER2=human epidermal growth factor receptor 2; PARPi=poly (ADP-ribose) polymerase inhibitor.

TREATMENT RECOMMENDATIONS

NCCN Guidelines and guidelines from the American Society of Clinical Oncology (ASCO) for breast cancer have been updated based on newly presented data for olaparib (LYNPARZA®)[1,5]

NCCN GUIDELINES RECOMMEND 1 YEAR OF ADJUVANT olaparib (LYNPARZA®)

as a preferred treatment option for patients with HER2-negative breast cancer if germline *BRCA1/2* mutation[1]

After preoperative (neoadjuvant) chemotherapy if:	After adjuvant chemotherapy if:
• TNBC and residual disease (category 1) • HR-positive, HER2-negative tumors and residual disease with a clinical stage, pathologic stage, estrogen receptor status, and tumor grade (CPS+EG) score ≥3 (category 2A)	• TNBC and ≥pT2 or ≥pN1 disease (category 1) • HR-positive, HER2-negative tumors and ≥4 positive lymph nodes (category 2A)

Adjuvant LYNPARZA can be used concurrently with endocrine therapy.

ASCO GUIDELINES RECOMMEND 1 YEAR OF ADJUVANT olaparib (LYNPARZA)

for patients with early-stage, HER2-negative breast cancer with high risk of recurrence and germline *BRCA1/2* pathogenic or likely pathogenic variants[5]

After preoperative (neoadjuvant) chemotherapy* if:	After surgery and adjuvant chemotherapy if:
• TNBC and any residual cancer • HR-positive, HER2-negative breast cancer, residual disease, and CPS+EG score ≥3	• TNBC and tumor size >2 cm or any involved axillary nodes • HR-positive, HER2-negative breast cancer disease and ≥4 involved axillary nodes

CPS=clinical and pathologic stage; EG=estrogen receptor status and histologic grade; HER2=human epidermal growth factor receptor 2; HR=hormone receptor; pN1=metastases in 1-3 axillary lymph nodes; pT2=tumor more than 2 cm but not more than 5 cm across; TNBC=triple-negative breast cancer.

*And local treatment, including radiation.

Please consider reviewing your policies and, if necessary, updating them to ensure this information is reflected per updated NCCN Guidelines and ASCO guidelines. If you have any questions or need more information, please reach out to your AstraZeneca Account Director.

References: 1. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Breast Cancer. V.2.2022. © 2021 National Comprehensive Cancer Network, Inc. All rights reserved. Accessed January 5, 2022. To view the most recent and complete version of the guideline, go online to NCCN.org. **2.** Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic. V.1.2022. © 2021 National Comprehensive Cancer Network, Inc. All rights reserved. Accessed November 29, 2021. To view the most recent and complete version of the guideline, go online to NCCN.org. **3.** The American Society of Breast Surgeons. Consensus guideline on genetic testing for hereditary breast cancer. Accessed November 29, 2021. https://www.breastsurgeons.org/docs/statements/Consensus-Guideline-on-Genetic-Testing-for-Hereditary-Breast-Cancer.pdf **4.** The American Society of Breast Surgeons. ASBrS-NSGC joint statement of medical societies regarding genetic testing requirements. Accessed November 29, 2021. https://www.breastsurgeons.org/docs/news/2021_ASBrS_NSGC_Joint_Statement.pdf **5.** Tung NM, Zakalik D, Somerfield MR; Hereditary Breast Cancer Guideline Expert Panel. Adjuvant PARP inhibitors in patients with high-risk early-stage HER2-negative breast cancer and germline BRCA mutations: ASCO hereditary breast cancer guideline rapid recommendation update. Published online August 3, 2021. *J Clin Oncol*. 2021;JCO2101532. doi:10.1200/JCO.21.01532

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