

Tumor Board Tuesday – Dr. Erika Hamilton & Dr. Mythili Shastry, 7/05/2022:

Neo/Adjuvant Treatment for BRCA Mutated Early Breast Cancer

Posttest Rationale

1. What additional biomarker testing would you request before selecting adjuvant therapy for a patient with newly-diagnosed, HR+, HER2- BC?

- a. **BRCA1/2**
- b. NTRK fusion
- c. MSI-H/dMMR
- d. TMB

**Rationale:** It would be appropriate to order *BRCA1/2* testing prior to selecting adjuvant therapy because targeted adjuvant therapy is available for patients with ER+/HER2- disease, germline *BRCA1/2* mutation, CPS+EG score  $\geq 3$ , and residual disease.

**Reference:** National Comprehensive Cancer Network (NCCN). NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®): Breast Cancer (v2.2022). Updated December 20, 2021. Accessed April 13, 2022.  
[https://www.nccn.org/professionals/physician\\_gls/pdf/breast.pdf](https://www.nccn.org/professionals/physician_gls/pdf/breast.pdf)

2. In addition to endocrine therapy, what adjuvant treatment would you select for a patient with HR+, HER2-, BRCA1/2+ BC who underwent resection (R1) and had a CPS+EG of 4?

- a. **Olaparib**
- b. Niraparib
- c. Talazoparib

**Rationale:** Only Olaparib is FDA-approved for the adjuvant treatment of adult patients with deleterious or suspected deleterious gBRCAm, HER2-negative high-risk early breast cancer who have been treated with neoadjuvant or adjuvant chemotherapy.

**Reference:** LYNPARZA® (Olaparib) [prescribing information]. AstraZeneca. Approved 2014. Revised March 2021.  
[https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2021/208558s019s020lbl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/208558s019s020lbl.pdf)