Molecular testing includes...

Of the 1740 patients who underwent genetic testing, 539 (22%) harbored mutations in BRCA1/2. Among the 212 PARPi-treated patients, 132 (62%) received niraparib, 49 (23%) received olaparib, and 37 (17%) received rucaparib.

Real-world tumor BRCA1 and BRCA2 testing, which includes germline (g), somatic (s), and test type unknown (u) and HRD testing rates remained infrequent and unchanged since 2014.

This real-world analysis suggests that despite strong societal recommendations only 50% of OC patients are tested for BRCA1 mutations.

The PARPi treatment rate (70%) observed in the study was similar to the mutation rates reported in the literature (≈22%).

The HRD testing rates remained inconsistent and unchanged since 2014.

From April 2017 to April 2018, 212 patients were treated with PARPi (niraparib, olaparib, and rucaparib). Of these patients, 70 (33%) were BRCA1 mutated, 102 (48%) were BRCA2 mutated, 9 (4%) were BRCA1 and BRCA2 unknown, and 31 (15%) did not undergo BRCA testing.

Among the 212 PARPi-treated patients, 132 (62%) received niraparib, 49 (23%) received olaparib, and 37 (17%) received rucaparib.

Of the 212 PARPi-treated patients, 39 (18%) had BRCA1 or BRCA2 mutations. These patients, 29 (41%) were treated with niraparib, 21 (30%) received olaparib, and 23 (33%) received rucaparib.

Of the 104 (48%) PARPi-treated patients with BRCA1 or BRCA2 status, 76 (75%) received niraparib, 18 (18%) received olaparib, and 11 (11%) received rucaparib.

Nine (4%) of the PARPi-treated patients were BRCA1 unknown. Of these patients, 7 (78%) were treated with niraparib, 11 (11%) received olaparib, and 1 patient (11%) received rucaparib.

BRCA1 testing was not undertaken in 31 (15%) PARPi-treated patients. Of these, 20 (65%) received niraparib, 9 (29%) received olaparib, and 2 (6%) received rucaparib.

CONCLUSIONS

This real-world analysis suggests that despite strong societal recommendations only 50% of OC patients are tested for BRCA1 mutations.

The PARPi treatment rate (70%) observed in the study was similar to the mutation rates reported in the literature (≈22%).

HRD testing rates remained inconsistent and unchanged since 2014.

After an initial increase in the testing rates following PARPi approvals in 2014, a decrease in the testing rates was noted in 2017, possibly due to the broadening of PARPi labels to more tumor types.

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REFERENCES


Table 1. BRCA and HRD Testing by Year of Diagnosis

Table 2. PARPi % Among BRCA Mutated, Wildtype, or Unknown (April 2017–April 2018)

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Figure 4. PARPi by BRCA1 Mutation Status (April 2017–April 2018)