GOOD SCIENCE
BETTER MEDICINE
BEST PRACTICE

Annals of Oncology 30 (Supplement 5): v99–v103, 2019
doi:10.1093/annonc/mdz241

BREAST CANCER, LOCALLY ADVANCED

292P BRCA1/2 testing in HER2- advanced breast cancer (ABC): Results from the European component of a multi-country real-world study

M.P. Lux[1], K. Lewis[2], A. Rider[2], A. Niyazov[3]

[1]*Kooperatives Brustzentrum Paderborn, Frauenklinik St. Louise, Paderborn, St. Josefs-Krankenhaus, Salzkotten, Frauen- und Kinderklinik St. Louise, Paderborn, Germany,* [2]*Adelphi Real World, Adelphi Group Ltd, Cheshire, UK,* [3]*US Oncology, Pfizer Inc., New York, NY, USA*

Background: Mutations in breast cancer susceptibility gene 1 or 2 (BRCA1/2) are risk factors for developing cancer, especially for breast cancer (BC) and ovarian cancer (OC). Recently, European BC guidelines have expanded the eligibility criteria for BRCA1/2 testing. This study assessed BRCA1/2 testing rates in HER2- adult women with ABC in Germany, France, Italy, Spain and UK (EU5).

Methods: Patient (pt) demographics/clinical characteristics were collected from oncologists in EU5 via Adelphi Advanced Breast Cancer Disease Specific Program. Data collected from 2 years (2015 and 2017) were merged across common variables. Differences in pt demographics/characteristics among BRCA1/2 tested/untested pts were analyzed via t-tests and z-tests. BRCA1/2 testing was analyzed via z-tests. Analyses of BRCA1/2 testing rates were stratified by hormone receptor status [hormone receptor positive (HR+)/HER2- or triple negative breast cancer (TNBC)] and HR status by family history (FHx) of BC or OC.

Results: 4,876 records were provided by 742 oncologists. The mean age was 63.6 yrs; 75% HR+/HER2-, 23% TNBC, 2% unknown HR status. Compared to BRCA1/2 untested pts, BRCA1/2 tested pts were younger [57.7 vs 65.2 yrs ($p<.001$)]and had TNBC [35% vs 20% ($p<.001$)]. Across all EU5 countries, the mean BRCA1/2 testing rate was 21%; France 20%, Germany 30%, Italy 24%, Spain 20%, UK 14%. Lower BRCA1/2 testing was seen among HR+/HER2- vs TNBC pts [18% vs 33% ($p<.001$)]. Among HR+/HER2- and TNBC pts, higher BRCA1/2 testing rates were observed among women with a known FHx of BC or OC. (Table). Table. BRCA1/2 Testing by HR Status and known FHx of BC or OC.

Conclusions: In this analysis of adult women with ABC, both HR+/HER2- and TNBC pts with a known FHx of BC or OC (vs no known FHx) were more likely to receive BRCA1/2 testing but testing rates are still low especially among HR+/HER2- pts. With the broadening of BRCA1/2 testing eligibility criteria in BC guidelines, opportunities exist to increase BRCA1/2 testing in EU5.

Legal entity responsible for the study: Pfizer Inc.

Funding: Pfizer Inc.

Disclosure: M.P. Lux: Honoraria (self), Advisory / Consultancy: Pfizer Inc.; Honoraria (self), Advisory / Consultancy: Novartis; Honoraria (self), Advisory / Consultancy: Lilly; Honoraria (self), Advisory / Consultancy: AstraZeneca; Honoraria (self), Advisory / Consultancy: Roche; Honoraria (self), Advisory / Consultancy: Genomic Health; Honoraria (self), Advisory / Consultancy: medac; Honoraria (self), Advisory / Consultancy: Grünethal; Honoraria (self), Advisory / Consultancy: Tesaro; Honoraria (self), Advisory / Consultancy: Eisai. A. Niyazov: Shareholder / Stockholder / Stock options, Full / Part-time employment: Pfizer Inc. All other authors have declared no conflicts of interest.

Table: 292P

	HR+/HER2- with FHx (n = 321)	HR+/HER2- without FHx (n = 2,953)	TNBC with FHx (n = 178)	TNBC without FHx (n = 789)
Pts tested, N (%)	116 (36)	476 (16)	99 (56)	234 (30)
P value	<.001		<.001	