Introduction/Background The impact of BReast CAncer genes (BRCA) status on early-stage ovarian cancer (eOC) survival has rarely been investigated. Therefore, the possible efficacy of Poly (ADP-ribose) polymerase inhibitors (PARPi) in this population is unexplored. Since the risk of recurrence in eOC is low but not absent, understanding the role of BRCA mutations in eOC could allow a more tailored approach.

Methodology Data of patients with a diagnosis of epithelial eOC (International Federation of Gynecology and Obstetrics FIGO stage I-II) between 2011–2019 with known BRCA status were collected from 5 centers in Europe. Results by the BRCA status were compared.

Results 369 patients were included, 110 (29.8%) with BRCA mutation (BRCAm) and 259 (70.2%) BRCA wild-type (BRCAwt). The two groups were homogeneous regarding age at disease presentation (table 1). As expected, high-grade serous histotype was significantly more frequent in BRCAm women (p < 0.001). BRCAm patients presented as a stage II in 46.4% of the cases, compared with 35.3% in BRCAwt group (p < 0.03). The majority of patients in the BRCAm group received a carboplatin-paclitaxel based treatment (81.5%) compared with 59.4% in the BRCAwt group. After a median follow-up of 45 months, recurrences were significantly more frequent in BRCAm population (32.7%) compared with BRCAwt (23.6%) (p < 0.04). There was no difference between the two groups in terms of median Progression-Free Survival (PFS) (BRCAm 79 months vs BRCAwt Not Reached, p < 0.36, figure 1a) and overall survival (OS) (median OS Not Reached for both groups; p < 0.25, figure 1b).

Conclusion No statistically significant differences in survival according to BRCA status were observed in eOC. The higher relapse rate in BRCAm patients does not affect OS, and can be explained with the use of PARPi or secondary surgery at recurrence. A specific analysis for HGSOC eOC population has already been planned.