

Methodology We performed targeted transcriptomics analysis of 50 genes using qPCR and estrogen metabolism analyses using LC-MS/MS. The model systems were high-grade serous ovarian cancer (HGSOC) cell lines OVSAHO, Kuramochi, COV632, and immortalized normal ovarian epithelial HIO-80 cells. The results in cell lines were compared with public transcriptome and proteome data for the HGSOC tissues.

Results In all model systems, HGSOC cell lines and tissues, high steroid sulfatase expression, and weak/undetected aromatase (*CYP19A1*) expression supported the formation of estrogens from the E1-S precursor. In ovarian cancer cells, the metabolism of E1-S to estradiol was the highest in OVSAHO, followed by Kuramochi and COV362 cells, and decreased with increasing chemoresistance. In addition, higher *HSD17B14* and *CYP1A2* expressions were observed in highly chemoresistant COV362 cells and platinum-resistant tissues compared to HIO-80 cells and platinum-sensitive tissues. The HGSOC cell models differed in *HSD17B10*, *CYP1B1*, and *NQO1* expression. Proteomic data also showed different levels of *HSD17B10*, *CYP1B1*, *NQO1*, and *SULT1E1* between the four HGSOC subtypes: differentiated, immunoreactive, proliferative, and mesenchymal.

Conclusion The results of our study suggest that in HGSOCs, the metabolism of E1-S precursor into estrogens decreases with increasing chemoresistance and that HGSOC subtypes form different levels of estrogens and their metabolites. The estrogen-biosynthesis-associated targets identified in our research present a base for further studies leading to potential personalized treatment development.

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OVARIAN CANCER RETROSPECTIVE EUROPEAN (O'CARE) OBSERVATIONAL STUDY: ANALYSIS OF FIRST-LINE (1L) OUTCOMES IN PATIENTS WITH OVARIAN CANCER (OC) STRATIFIED BY NUMBER OF RISK FACTORS FOR PROGRESSION

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Introduction/Background The O'CaRE study assessed real-world burden of disease, treatment patterns, and outcomes in patients with OC in 5 European countries (UK, France, Germany, Spain, and Italy). The analysis presented provides real-world data on the cumulative impact of risk factors (RFs) on disease progression and survival following 1L treatment.

Methodology O'CaRE was a multicentre, noninterventional retrospective medical chart review study of patients aged ≥18 years diagnosed with epithelial ovarian, fallopian tube, or primary peritoneal cancer from 1 January 2014 to 31

December 2015. Patients were classified into moderate- or high-risk categories based on number of RFs for progression (Table). High-risk patients were further grouped by total number of RFs. Patients were followed from index date (date of diagnosis) until last activity or study end (maximum follow of 4 years). Kaplan-Meier methodology was used to estimate progression-free survival (PFS) and overall survival (OS).

Results The analysis included 412 patients: 7 (1.7%) had moderate risk of progression, whereas 405 (98%) had high risk of progression (table 1). For those with high risk, 84 (20.4%), 133 (32.3%), 139 (33.7%), and 49 (11.9%) had 1, 2, 3, and 4 RFs, respectively. Median PFS was 31.3 months for patients with 0 RFs and 12.6, 7.9, 5.9, and 3.5 months for patients with 1, 2, 3, or 4 RFs, respectively. Median OS was 41.9 months for patients with 0 RFs and not reached, 25.0, 18.0, and 7.4 months for patients with 1, 2, 3, or 4 RFs, respectively.

Abstract 2022-RA-1505-ESGO Table 1 Outcomes by risk factors

	Risk Factor Classifications				
	Moderate risk		High risk		
	Stage III disease No VRD PDS BRCAm		Presence of ≥1 of the following: Stage IV disease VRD IDS or other surgery BRCAwt or BRCAunk		
	Moderate risk		High risk		
	0 Risk Factors	1 Risk Factor	2 Risk Factors	3 Risk Factors	4 Risk Factors
n (%)	7 (1.7)	84 (20.4)	133 (32.3)	139 (33.7)	49 (11.9)
mPFS (95% CI), months	31.3 (14.2–NR)	12.6 (10.8–19.6)	7.9 (6.3–11.1)	5.9 (4.5–8.2)	3.5 (1.9–5.0)
mOS (95% CI), months	41.9 (41.9–NR)	NR (34.4–NR)	25.0 (21.1–30.2)	18.0 (13.7–24.2)	7.4 (5.1–19.4)

BRCAm, BRCA mutant; BRCAunk, BRCA unknown; BRCAwt, BRCA wild-type; IDS, interval debulking surgery; mOS, median overall survival; mPFS, median progression-free survival; NR, not reached; PDS, primary debulking surgery; VRD, visible residual disease.

Conclusion This real-world analysis of patients with OC from 5 European countries demonstrated that higher numbers of RFs were associated with shorter median PFS and OS. This analysis provides real-world data relating to 1L treatment outcomes for patients with OC; if validated in clinical trials, the number of RFs could be a stratification factor for future 1L OC trials.

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IMPACT OF SURGICAL STAGING ON SURVIVAL OF LOW GRADE ENDOMETRIOID OVARIAN CANCER APPARENTLY CONFINED TO THE OVARY

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