Abstract 724 Table 1 Median time to next treatment by number of risk factors (95% CI), months

Type of treatment	High-risk category (≥1 risk factor)	Number of risk factors				
		0	1	2	3	4
MT	13.3 (11.1–16.3)	28.8 (10.8–NA)	19.3 (13.5–30.6)	17.8 (12.8–22.5)	10.6 (7.0–13.4)	6.7 (6.2–8.4)
AS	9.0 (8.0–9.9)	26.4 (14.7–47.8)	17.7 (13.4–23.3)	11.3 (9.2–12.5)	6.5 (5.8–7.7)	4.0 (3.5–4.4)

AS, active surveillance; CI, confidence interval; MT, maintenance therapy; NA, not achieved.

28, 2021, from the Flatiron Health electronic health record-derived de-identified US database. Patients ≥18 years old, with stage III/IV disease, who received 1L platinum-based therapy, had ECOG performance score of 0/1, and had ≥12 weeks of follow-up after 1L treatment were included. Patients were classified into 2 risk categories: moderate risk (stage III disease, no visual residual disease, primary debulking surgery, and *BRCA* mutant) or high risk (presence of ≥1 of the following: stage IV disease, visible residual disease, interval debulking surgery/no surgery, or *BRCA* wild type/unknown status). High-risk patients were further grouped by total number of RFs. Patients were followed from index date (ID), defined as end of 1L treatment. The target trial emulation method was used to account for potential selection and immortal time biases. Patients were classified as having received MT if MT was started within 120 days of ID.

Result(s)* Of the 1251 patients with advanced OC evaluated, 26% (n=323) initiated 1L MT and 74% (n=928) did not. Of patients who received MT, 5% (n=16) were moderate risk and 95% (n=307) were high risk. Only 4% (n=34) of AS patients were moderate risk and 96% (n=894) were high risk. Time to next treatment (TTNT) decreased with more RFs (table 1). Notably, among patients in the high-risk category, median TTNT was longer in patients who received 1L MT than in those who received AS (table 1).

Conclusion* The number of RFs impacted the risk of PD, irrespective of the type of treatment the patient received after completion of 1L treatment. For high-risk patients, greater TTNT prolongation was associated with 1L MT but not AS.

727 HRD SCORING WITH A SNP ASSAY

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Introduction/Background* Homologous recombination deficiency (HRD) is a well-known characteristic of BRCA-mutated tumors, an alteration present in ~30% of ovarian cancers and with different frequencies in breast, prostate and pancreatic cancers. The PAOLA-1 trial demonstrated that responders to Poly (ADP-ribose) polymerase (PARP) inhibitors do not only include *BRCA*-mutated tumors but also tumors that are *BRCA*-wildtype and display an HRD phenotype. Given its importance, many different scores and technologies have been proposed and commercialized to assess the HRD phenotype. Nonetheless many of these solutions are expensive and/or complicated to implement in practice.

Methodology We propose a novel HRD scoring algorithm based copy number alterations obtained from a clinical-grade SNP assay that works on FFPE samples (ThermoFisher Oncoscan Assay). The method has been evaluated on 400 high-grade ovarian carcinoma and 100 triple-negative breast cancer samples from the TCGA cohort. A validation was performed on an internal cohort of 50 ovarian cancers.

Result(s)* The algorithm performed better than two well-known commercial methods, the compound score from Telli et al. (LST+LOH+TAI) and the percentage of LOH bases across the genome, and classified correctly the BRCA-mutated cancers into the HRD category.

Conclusion* The high concordance with the LST+LOH+TAI score led to its inclusion into the clinical routine at the Geneva University Hospitals. The method is also being evaluated as a biomarker to predict response to Olaparib as part of phase 3 of the ENGOT HRD European Initiative (EHEI).

729 THE IMPACT OF AGE AND PERFORMANCE STATUS ON THE MANAGEMENT OF PATIENTS WITH OVARIAN CANCER: A MULTICENTRIC STUDY

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Introduction/Background* Incidence of ovarian cancer increases with age and reaches a peak at 70 years. The aim of the present study is the analysis of therapeutic differences, both surgical and pharmacological, in patients affected by ovarian cancer and stratified by age.

Methodology A multicentre retrospective study has been conducted. Patients with ovarian cancer were included and ranked at diagnosis in group A (≥70 years) and group B (<70 years). Co-morbidities, performance status, FIGO stage, grading, histotype and treatment were considered. Surgical treatment was considered as primary debulking surgery or interval debulking surgery (IDS) reporting extension, residual tumour, complications and days of hospitalization. Chemotherapy was administered for 3 or more cycles and the clinical response was evaluated.

Result(s)* 459 patients were included in the study, 132 (28.8%) in group A and 327 (71.2%) in group B. Considering advanced stages optimal cytoreduction was achieved in 76.7% of younger patients and in 66.7% of older (p=0.05). IDS was especially necessary in in the elderly compared to the young ones (37.9% vs 49%; p=0.05). There was good correlation between overall survival and the performance status (p=0.0001), the age at diagnosis (p=0.001), tumour stage (p=0.0001) and residual tumour (p=0.00001).

Stratifying by stage the residual tumour (OR=2.4; p=0.0001) , age (OR=1.9 P=0.0001), and the performance status (OR=1.2; p=0.03) resulted as independent survival prognostic factors according to Cox multivariate analysis.

Conclusion* Our data suggest that patients aged ≥70 can tolerate radical surgical treatments in the same way as younger patients without a significant increase in morbidity and, obviously, without ignoring the appropriate geriatric precautions. Furthermore, maximal surgical effort with optimal cytoreduction should be considered the gold standard regardless of age.

Therefore, our data underlines the importance of managing these patients within Gynecologic Oncology units equipped with a multidisciplinary team.

732 OVARIAN CANCER AND BRCA1 AND 2 GERMLINE MUTATIONS – THE PORTUGUESE EXPERIENCE

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Introduction/Background* Ovarian cancer (OC) is the second most common gynecologic malignancy in developed countries and the third most common in developing countries. Approximately 13 to 15 percent of OC are attributable to heritable mutations in *BRCA1* and *2*.

This study aims to: I- assess median overall survival (mOS); II- characterize patients (pts) with OC assessed in a Family Risk Consultation (FRC).

Methodology This is a multicentric, descriptive and retrospective study of pts with OC followed at the FRC between 2007-2019 in two porruguese hospitals. Data was obtained from clinical files. Statistical analysis was performed using SPSS version 24® and OS using Kaplan-Meier method.

Result(s)* There were included 70 pts, of which 23% (n=16) had *BRCA1/2* mutation: *BRCA1* mutation occurred in 56% (n=9) of pts and *BRCA2* in 44% (n=7). The Portuguese founder mutation - *BRCA2* c.156-157insAlu was found in 2 pts.

Median age of BRCA mutated (mut) pts was 56 years (39-71) and BRCA wild type (wt) was 62 years (35-78).

The most frequent histology was Serous Carcinoma, in 86% (n = 60) of pts; most frequent stages were IIIC 46% (n = 32) and IV 17% (n = 12). Neoadjuvant chemotherapy (CT) was performed in 50% of pts (n = 35) and in 37% (n = 26) surgery was the first therapeutic approach followed by adjuvant CT. Eleven pts (16%) were treated with PARP inhibitors: 6 pts BRCAmut and 5 BRCAwt.

There was family history of cancer in 56% of BRCAmut and in 45% of BRCAwt.

mOS of BRCAmut was 13.81 years (CI 95% 10.36-17.26) and 5.54 years (CI 95% 4.21-6.88) to BRCAwt, with a significant difference between the two groups (X^2=4.460; P=0.035).

Conclusion* Detection rate of *BRCA1/2* mut was higher than described in literature. BRCAmut pts showed a statistically significant longer survival, when compared with BRCA wt pts. Characterization of these pts at a national level would be an opportunity to obtain real data from the Portuguese population.

733 OUR EXPERIENCE IN OVARIAN CANCER 2006–2015 . STANDARDS OF QUALITY IN SURGICAL MANAGEMENT

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Introduction/Background* It is important to know the survival data of patients with ovarian cancer treated in our unit,the variables associated with the prognosis and the degree of compliance with the standards in the surgical management of ovarian cancer

Methodology Retrospective study of patients with ovarian cancer diagnosed and treated in CHUIMI in the period between 2006-2015.We studied epidemiological variables,stage at diagnosis,type of treatment,histopathological study,follow up and current status of patients.

Result(s)* The total number of patients diagnosed with ovarian cancer in the study period was 331,with a mean age of 57.84 years (range 26–85 years).69.8% were in advanced stages at the time of diagnosis (Stage I 23.9% (79),Stage II 6.3% (21), Stage III 54.1% (179) and Stage IV 15.7% (52).

Regarding the histological type,serous was the most frequent representing 49.8% of the sample, followed by endometrioid with 16.3% and clear cells with 10.9%.We found that endometrioid,clear cells and mucinous types were more frequent in the grupo diagnosed with eraly stages versus the serous type that were more associated with the advanced disease.

Overall survival (OS) at 5 years is 40.8% for the complete series. 83.3% for stages I, 72.2% for stages II, 29.1% for stages III and there are no patients in stage IV who lived after 5 years. In stages III, the most frequent therapeutic approach is initial surgery in 41.1%, followed by neoadjuvant chemotherapy in 30.3%. Stage III patients receiving surgery + adjuvant chemotherapy showed an OS of 47% at 5 years (median survival 44 months) meanwhile those who received neoadyuvant chemotherapy and get the surgery in second place showed an OS of 27.1% (median survival 35 months).

When we studied the effect of tumor residue after surgery in stage III patients, the OS when the surgery was complete was 52,9% at five years, 15% if there were residual tumour, regardless of the size. Initial surgery was performed in 58% of all stages III-IV (objective> 50%). Complete citoreduction was achieved in 51% of all stages III-IV (minimum objective> 50%, optimal> 65%)

Conclusion* Our epidemiological and survival data coincide with what has been published in the literature.Having surgeons with experience in the management of peritoneal carcinomatosis will allow to increase the rate of complete citoreductions

740 ESGO CERTIFICATION FOR ADVANCED OVARIAN CANCER SURGERY: THE EXPERIENCE OF AN ONCOLOGY CENTER TO AIM ACCREDITATION

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Introduction/Background* The outcomes of advanced ovarian cancer surgery is related to the size of the largest residual