tumor present after surgery that represents the most important prognostic factors. ESGO developed a list of quality indicators with an update in 2020 for certification of centers to ensure the best surgery for patients. These criteria include 24 complete surgeries per year in advanced stage III and IV ovarian cancer over the last 3 years. The main target is to ensure a complete resection rate of minimum require >50% to an optimal > 65%.

Methodology From 2018 the Department of Gynecology Oncology Center of Treviso Regional Hospital is trying to obtain the Esgo accreditation for the ovarian cancer.

Result(s)* Analyzing all the cases (from 2018 to 2020) we report a total of 66 high grade ovarian cancer, a complete resection rate of 73%, with a rate of primary debulking surgeries of 74%; 83% of the surgeries were performed by a certified gynecologic oncologist. The decision for any major therapeutic intervention has been taken by a multidisciplinary team in the 80% of cases. More than 95% patients had a treatment planned at a multidisciplinary team meeting (including a surgical specialist, a radiologist, a pathologist and a medical oncologist), more than 95% patients had a required pre operative workup. More than 90% of patients had a minimum required elements in pathology reports, we recorded prospectively all of the post operative complications. According to all of these aspects our center obtained a score of 32 points.

Conclusion* Actually the quality of the team work in our center has improved in the last three years. We started in 2018 with 18 cases of ovarian cancer moving up in the last two years to 24 cases. In 2020 we reported a lower rate of complete resection due to the more complex surgery for a more radical surgery to get a complete cytoreduction. We realized that since we begin to collect data for the accreditation we improved our surgical approach for the advance ovarian cancer.

| 747 | **OVARIAN CANCER ONSET ACROSS DIFFERENT BRCA MUTATION TYPE** |

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Introduction/Background* Mutations in BRCA-genes have been identified as predisposing to hereditary breast and ovarian cancers. Little is known about how ovarian cancer risks differs across different BRCA mutation type. The purpose of our study is to identify the correlation between specific type of BRCA mutations and (1) age of onset of high-grade serous ovarian cancer (HGSOC) and (2) patients' survival.

Methodology Retrospective multicentric series of newly diagnosed HGSOC-patients with FIGO Stage III-IV, assessed for germline (g)BRCA status. BRCA gene mutations were classified into 5 groups: deletion, insertion, no-sense, missense and splicing.

Result(s)* A total of 214 patients were included in the analysis. 143 (67.1%) had a gBRCA1-pathogenic variant (PV) and 71 (33.1%) had a gBRCA2-PV.

Abstract 747 Table 1 Distribution of BRCA mutation and age of onset

	All cases Nr (%)	Age Mean (SD)	BRCA-1 Nr (%)	Age Mean (SD)	BRCA-2 Nr (%)	Age Mean (SD)
All cases	214	54.75 (10.9)	143	53 (10.9)	71	57.2 (10.5)
Deletion	93 (43.5)	55 (10.4)	55 (38.5)	53.4 (10.1)	38 (53.5)	57.2 (10.7)
Insertion	40 (18.7)	58 (11.1)	26 (18.2)	57.7 (11.7)	14 (19.7)	59.6 (10.1)
No sense	39 (18.2)	49.7 (9.0)	30 (21.0)	48.8 (9.7)	9 (12.7)	53.0 (5.5)
Missense	32 (15)	55.4 (12.9)	25 (17.5)	54.6 (12.6)	7 (9.9)	58.2 (14.9)
Splicing	10 (4.7)	55.3 (8.9)	7 (4.9)	54.5 (7.6)	3 (4.2)	57.0 (13.4)
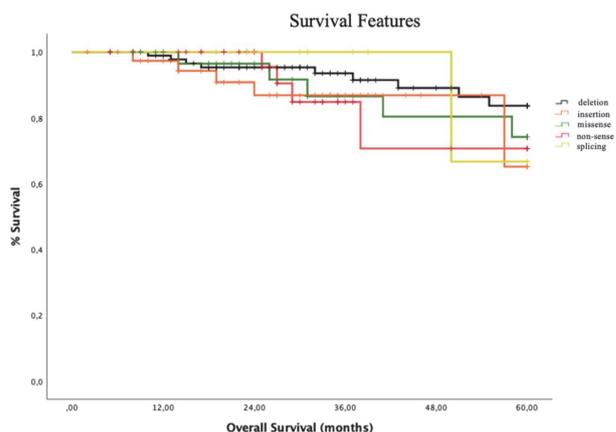
Abstract 747 Figure 1 overall survival in patients with different type of BRCA mutations

Overall, the mean age of onset was 54.75 years (10.9 SD) with a difference of around 4 years between patients having BRCA 1 and BRCA2 mutations (53yrs, SD 10.9 vs. 57.2yrs, SD 10.5; p=0.018). The most frequent mutation found was deletion (42.9%). Patients with no-sense mutation (18.2%) had the youngest age of onset, both in BRCA1 and BRCA2 subgroups, with an earlier occurrence of around 6 and 4 years respectively (BRCA1 group: 48.8yrs, SD 9.7 vs.54.7yrs, SD10.9; p=0.008) (BRCA2 group 53.0yrs SD 5.5 vs. 57.9yrs SD 10.9; p=0.04). Women with insertion (18.7%) had the oldest age of onset, both in BRCA 1 (57.7yrs, SD 11.7 vs. 52.2yrs, SD10.6; p=0.028) and BRCA2 (59.6yrs SD 10.1 vs. 56.6yrs SD 10.6) subgroups (p=ns) (table 1). No statistically significant difference in overall survival was found among the 5 groups examined (figure. 1).

Conclusion* Our study highlights for the first time that different types of BRCA mutations could indicate a different age for OC onset. If confirmed in larger series, it might have a relevant clinical impact, leading to a more tailored approach for risk-reducing surgery strategies for OC prevention. Moreover, as we initially include only advanced stages in our analysis, further investigation on the time of onset of early BRCA mutated OC is currently ongoing.

| 751 | **CORRELATION BETWEEN TUMOR MARKERS AND TUMOR BURDEN IN ADVANCED EPITHELIAL OVARIAN CANCER** |

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Introduction/Background* The aim of this study was to correlate the serum concentrations of tumor markers HE4 and

CA125 with the tumor burden evaluated through the volumetric parameters of FDG-PET/CT FDG in patients with advanced epithelial ovarian cancer (EOC) before primary treatment.

Methodology Sixty-six patients with advanced stage high grade serous ovarian carcinoma (HGSOC) or undifferentiated carcinoma (UOC) were included. Serum HE4, serum CA125 and FDG PET/CT were performed before primary treatment. Volumes of interest (VOIs) were delimited on every pathological uptake in PET images. Whole-body metabolic tumor volume (wbMTV) and total lesion glycolysis (wbTLG) were calculated as the sum of every single VOI value. SUVmax thresholds were set at 40% and 50%. Four VOIs subgroups were defined for analysis: carcinomatosis, retroperitoneal, supradiaphragmatic and metastases. MTV and TLG values were calculated for each of them. The associations between these parameters and serum tumor markers were assessed through Pearson and Spearman tests.

Result(s)* When correlating wbMTV and wbTLG with both CA125 and HE4, significant associations were found. The strongest correlation was observed between HE4 and wbMTV40% (r=0.61, p<0.001). Peritoneal carcinomatosis MTV exhibited a statistically significant correlation with both tumor markers. Pearson's correlation coefficient was 0.61 (p<0.0001) between HE4 and MTV40% and 0,29 (p=0.02) between CA125 and MTV40%. Neither the retroperitoneal nor the supradiaphragmatic or metastatic disease assessed by MTV and TLG showed any correlation with these tumor markers.

Conclusion* Peritoneal tumor burden measured by FDG PET/CT volumetric parameters correlates better with HE4 than with CA125 in patients with advanced epithelial ovarian cancer. These results support the increasing utility of HE4 to improve the stratification of these patients in clinical practice

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753 **PARP INHIBITORS IN REAL-WORLD PRACTICE FOR NEWLY DIAGNOSED OVARIAN CANCER: THE EFFECT OF ONLINE EDUCATION ON CLINICIAN COMPETENCE AND CONFIDENCE**

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Introduction/Background* This study determined whether online continuing medical education (CME) could improve the competence of obstetricians/gynaecologists (obs/gyns) and oncologists (oncs) regarding the selection and application of PARP inhibitor maintenance strategies for patients with newly diagnosed advanced ovarian cancer

Methodology A 30-minute online video discussion between four expert faculty was launched for physicians outside the USA December 2020 with data collected to May 2021. Educational effect assessed with repeated-pairs pre-/post-activity-individual participants serving as their own control. 3 multiple-choice, knowledge questions and 1 self-efficacy, 5-point Likert scale confidence question were analysed. McNemar's test assessed pre- to post-activity change (5% significance level, P <.05). Magnitude of change in total number of correct responses overall, and for each question, determined with Cohen's d (<.2=Modest, .20-.49=Small, .50-.79=Moderate, >.80=Large.

Result(s)* 216 obs/gyns and 80 oncs completed pre- and post-activity questions. Positive educational effect was observed for obs/gyns (small effect, Cohen's d=.34, P<.001; average% of correct responses increasing from 46 to 57%) and oncs (moderate effect, Cohen's d=.51, P<.001; average% of correct responses increasing from 60 to 73%). Increases in correct responses post-activity were seen for questions on selection of the right diagnostic testing (% relative improvement, obs/gyn: 21%; oncs 15%), selection of treatment/maintenance strategy (obs/gyns: 10%, oncs: 4%), and management of myelosuppression (obs/gyns: 37%; oncs: 44%). The% of participants answering all questions correctly increased from 12 to 25% for obs/gyns and from 23 to 43% for oncs. Pre-activity competence was low for all questions and despite improvements, this remained modest post-activity. Confidence selecting an appropriate PARP inhibitor maintenance strategy for patients with newly diagnosed ovarian cancer increased post-activity with 47% of obs/gyn and 44% of oncs with improved confidence. Overall, 41% of obs/gyns and 41% of oncs improved their competence by answering at least one more question correctly post-activity.

Conclusion* This on-demand, online video panel discussion had a positive educational impact. However, significant education gaps were evident pre-activity that remained post-activity in a high proportion of participants. There is a need for further education to increase the competence and confidence of clinicians in application of PARP inhibitor maintenance regimens in real world practice

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755 **THE TRANS-RETRO-PERITONEAL SINGLE-PORT ENDOSCOPIC ACCESS FOR COMPREHENSIVE STAGING OF EARLY OVARIAN CANCER: CASE REPORT AND VIDEO**

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Introduction/Background* We developed a new mini-invasive access to perform an endoscopic extra-peritoneal para-aortic lymphadenectomy via a single-port umbilical device. This technique allows, per se, access to the peritoneal space, so complementary staging procedures can be performed via the same single-port. Here we describe the use of the technique to stage an early ovarian cancer patient, including a pelvic and para-aortic lymphadenectomy up to the left renal vein. So far in gynaecologic surgery, two distinct types of endoscopic accesses have been used to perform paraaortic lymphadenectomies: trans-peritoneal and extra-peritoneal, each with advantages and disadvantages. We previously reported the use of our technique to stage locally advanced cervical cancer patients prior to concomitant radio-chemotherapy, combining the advantages of those two approaches while eliminating their disadvantages. Here we report the use of this technique to perform a complete staging for an ovarian cancer patient.

Methodology This innovative approach combines both an extra-peritoneal and an intra-peritoneal procedure via the same umbilical incision using one single trocar (Applied Medical Gelpoint Mini°) The key point is to grab the peritoneum overlying the aorta bifurcation, raise it to the umbilicus and re-introduce the single-port device into the retroperitoneal space. All the paraaortic lymphatic basins are dissected up to the left renal vein. Once the para-aortic lymphadenectomy is