Introduction/Background By analyzing the longitudinal data of serum CA (cancer antigen) 125 data during follow-up, we developed a framework for the dynamic determination of the follow-up interval based on serum biomarkers.

Methodology The longitudinal data of CA125 tests from routine 3-month follow-up visits of advanced epithelial ovarian cancer were retrospectively retrieved. A repeated-measure analysis using mixed model effects was developed to predict the probability of short-term recurrence (within 3 months and 6 months). The probability was calculated for the three predefined risk groups: serum CA125 levels lower than 10 U/ml, between 10 and 20 U/ml, and higher than 20 U/ml.

Results The 346 CA125 test results from 115 patients were subjected to longitudinal analysis. For results less than 10 U/ml, the predicted probabilities that the patient would experience disease recurrence within 3 and 6 months were 4.1% and 14.0%, respectively. For results between 10 U/ml and 20 U/ml, the predicted probabilities were 9.8% and 40.5%, respectively. For results greater than 20 U/ml, the predicted probabilities increased to 40.3% and 61.0%, respectively. Multivariate analysis indicated that the current CA125 level was the sole factor significantly associated with recurrence both within 3 months and within 6 months (all \( P < 0.001 \)).

Conclusion We developed a risk model to predict the short-term recurrence risk of ovarian cancer and proposed a framework for the dynamic determination of the follow-up interval based on the results of CA125 testing.

Abstract 2022-RA-1694-ESGO Figure 1

OVARIAN EPITHELIAL CELL POPULATION AS A NOVEL CELL AND THERAPEUTIC TOOL FOR SMALL CELL CARCINOMA OF THE OVARY, HYPERCALCEMIC TYPE (SCCOHT)

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Introduction/Background SCCOHT is a rare malignancy affecting young women, with 5-year survival of 10–20%. SCCOHT is caused by inherited and acquired mutations in the SMARCA4 gene, which encodes the BRG1 protein that participates in SWI/SNF chromatin remodeling. There are few established cell-lines and no models of SCCOHT to test new therapeutics.

Methodology We obtained fresh ovarian surface epithelial cells (OSE) from 2 unique cases: 1) A 14-year-old familial carrier of a SCCOHT-associated SMARCA4 mutation (SMARCA4 c.30821+1G>T) who underwent prophylactic bilateral salpingo-oophorectomy, and 2) A 29-year-old with late recurrence of stage IA SCCOHT (SMARCA4 c.189,2dupC). OSE were passaged in vitro. In Case 1, the experiments aimed to determine if the OSE harboring a pathogenic SMARCA4 mutation will spontaneously immortalize. We interrogated loss of contact-dependent inhibition, ability of the cells to grow independently and form spheroids, and measured senescence-associated beta-galactosidase, cell necrosis and apoptosis. Analyses were conducted in parallel with age-matched benign ovarian cyst OSE. In Case 2, Next-Generation Sequencing for a panel of cancer genes, RNAtranscriptome and Nanostring Digital Spatial Profiling (DSP) were performed. Tumour cells in culture were prepared for injection into immunodeficient mice.

Results SMARCA4 mutant ovarian cells were passaged 12 times and continue to proliferate in culture, spontaneously formed foci of multi-cell aggregates and spheroids, while non-mutant control cells failed to propagate and expand (Case 1). In Case 2, the mutant SMARCA4 allele was present in tumor tissue, with a heterozygous germline. There were no additional mutations/gene fusions. Tumor cells were injected subcutaneously in 3 NOD/Scid mice with measurable tumor growth within 4 weeks in all.

Conclusion SMARCA4 mutant cells associated with familial SCCOHT show characteristics of early neoplastic transformation and represent a unique tool to study pathogenesis of SCCOHT. A PDX model of advanced SCCOHT (Case 2) provides a novel tool for developing therapeutic approaches for SCCOHT.

ONCOLOGICAL OUTCOMES OF LAPAROSCOPY IN PATIENTS WHO UNDERWENT A CONSERVATIVE FERTILITY TREATMENT IN OVARIAN BORDERLINE TUMOURS

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Introduction/Background Borderline ovarian tumours (BOTs) have an average age at the diagnosis of 40 years and around 30% of patients have not completed their childbearing. Fertility sparing surgery (FSS) is considered the best treatment without an impact on the overall survival rate. However, the safety of laparoscopy for FSS in BOTs remains limited with short follow-up and ESGO and ESMO guidelines indicate open surgery as the standard approach. We aim to assess the long-term oncological safety of laparoscopy in the FSS treatment of BOTs.

Methodology This is a retrospective single-centre study including 34 women who underwent laparoscopic FSS for BOTs, between January 2000 and June 2019 at Hospital Clinic of Barcelona. FSS was considered when the uterus and at least 30% of the ovarian tissue was conserved. Patients were scheduled for transvaginal ultrasound and blood test including CA125 for 10 years or until loss. Chi-square and Fisher’s tests were applied for qualitative variables. Student T-tests or Mann-Whitney tests were applied for continuous variables.

Results Median age was 32 years. Unilateral cystectomy was performed in 15 patients (44.1%), bilateral cystectomy in 2
(5.9%), unilateral adnexectomy in 14 (41.1%) and unilateral adnexectomy with contralateral cystectomy in 3 (8.9%). Mean tumour size and CA125 at diagnosis was 8.72 cm and 21, respectively. Twelve patients (35.2%) relapsed with a mean follow-up time of 95 months, being earlier in case of unilateral cystectomy (median 30 months, IQR 29) and bilateral cystectomy (18 months, IQR 0), compared to unilateral adnexectomy (median 78 months, IQR 64). Up to 41% relapses occurred after 45 months. Surgical factors related to laparoscopy and risk of recurrence were studied without finding significant differences.

### Abstract 2022-RA-1715-ESGO Table 1

<table>
<thead>
<tr>
<th>Factor</th>
<th>Category</th>
<th>Odds Ratio (IC 95%)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Histology</td>
<td>Serous</td>
<td>4 (0.6744003 23.72478)</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>Mucinous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FIGO Stage 2014</td>
<td>IA-IB</td>
<td>0.54 (.1192275 2.311757)</td>
<td>0.394</td>
</tr>
<tr>
<td></td>
<td>IC-III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laterality</td>
<td>Bilateral</td>
<td>1.21 (.1751372 8.389066)</td>
<td>0.845</td>
</tr>
<tr>
<td></td>
<td>Unilateral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of surgery</td>
<td>Cystectomy</td>
<td>1.51 (.3865568 5.950685)</td>
<td>0.550</td>
</tr>
<tr>
<td></td>
<td>Adnexectomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capsular rupture</td>
<td>Yes</td>
<td>1.1 (.2602337 4.649666)</td>
<td>0.897</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endobag use</td>
<td>Yes</td>
<td>1.06 (2.736021 4.1802)</td>
<td>0.923</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion Laparoscopic FSS for BOTs is a safe treatment in patients with reproductive desire without impacting on overall survival. A long-term follow-up is essential to detect late recurrences.

**Pazopanib with Topotecan Weekly For Patients with Platinum-Resistant or Intermediate-Sensitive Recurrent Ovarian Cancer: Results of a Multicentre NOGGO Phase I and II Study (TOPAZ)**

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**Introduction/Background**

Patients with recurrent ovarian cancer (ROC) have a particularly poor prognosis. So far recurrent treatment are mostly restricted by previous toxicity and of limited activity. The role of adding modern multi-targeted tyrosine kinase inhibitors (TKIs) for targeting angiogenesis could be a promising therapeutic strategy. The investigator-initiated multicentre TOPAZ trial aimed to evaluate the safety and efficacy of the combination of Topotecan with Pazopanib.

**Methodology**

Patients with platinum-resistant ROC with no more than two prior lines of chemotherapy were enrolled. The chemotherapy backbone was based on weekly Topotecan (4 mg/m², d1,8,15 q28d). In phase I, pazopanib was added orally 400 mg/d in a dose-escalating regime to determine the maximum tolerated dose (MTD). The aim of phase II was to evaluate the safety and efficacy of pazopanib in the optimal MTD together with weekly Topotecan based on progression-free survival.

**Results**

From June 2012 to February 2017, 11 patients were enrolled in phase I and 50 patients in phase II. The MTD of pazopanib was set at 400 mg/d. In phase I, the most common adverse event was haematological toxicity. In phase II, the median progression-free survival was 3.5 months (95% CI, 2.0–5.0 months), with haematological toxicity being the most common reason for dose change and treatment delays. The combination of Topotecan and Pazopanib is shown to be feasible in terms of safety profile. It offers no clinical advantage in progression-free or overall survival compared to Topotecan mono-therapy.

**Conclusion**

Adding pazopanib to topotecan is safe and feasible, but does not seem to have any clinical benefit. We will not pursue this combination. Further studies are needed that pursue the approach of novel combination therapies with chemotherapy and anti-angiogenesis inhibitors. In addition, the promising therapeutic options with PARP and immune checkpoint inhibitors should also be considered.

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**Palliative Care**

**Quality of End-of-Life Care and Patterns of Palliative Care Use by Women with Gynaecologic Malignancies in Ontario, Canada: A 13-Year Population-Based Retrospective Analysis**

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**Introduction/Background**

A large body of research has validated several quality indicators of end-of-life (EOL) cancer care, but few have examined these in gynecologic cancer. Early palliative care (PC) is associated with improved patient quality of life, less aggressive EOL care, and prolonged survival. We examined provincial palliative and EOL care patterns.

**Methodology**

This population-based, retrospective cohort study of gynecologic cancer decedents in Ontario from 2006–2018 used linked administrative health care databases. Quality indicators included: emergency department (ED) use, hospital or