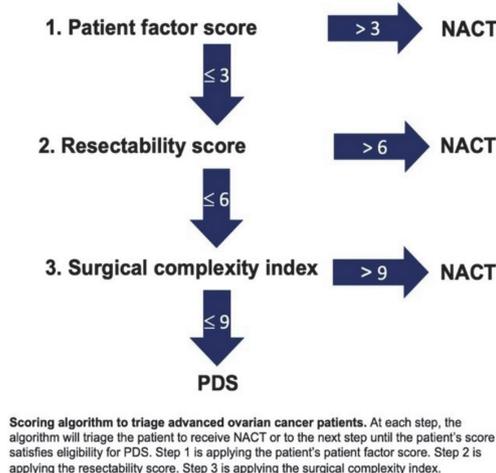


Integrated Prediction Model (IPM)



1. Patient Factor Score

Age (yrs)	ECOG ^a score	Albumin (g/L)
• ≤ 60 = 0	• ≤ 1 = 0	• ≥ 35 = 0
• 61 – 70 = 1	• 2 = 1	• ≥ 30, < 35 = 1
• 71 – 75 = 2	• 3 or 4 = 2	• < 30 = 2
• 76 – 80 = 3		
• > 80 = 4		

Patient Factor Score. Pre-treatment patient factors that contribute to the patient factor score and the score assigned for each value of a factor. ^aEastern Cooperative Oncology Group performance status.

2. Resectability score

Radiological Finding	Assigned Score
Splenic hilum/ ligaments lesion	1
Gastrohepatic ligament/ porta hepatis lesion	1
Retropertitoneal lymph nodes above renal hilum (includes supradiaphragm)	1
Diffuse small bowel adhesions/ thickening	1
Abdominal ascites (moderate – severe) and/or CA125 > 800	2
Gallbladder fossa/ liver intersegmental fissure lesion	2
Lesser sac lesion > 1 cm	2
Root of the superior mesenteric artery/ duodenum lesion	4
Resectability score (total)	/14

Resectability Score. Modified from CT criteria in a previously published prediction model. Calculated from most recent CT abdomen, pelvis, and chest as reviewed by a designated radiologist and discussed at multidisciplinary ovarian cancer rounds.

3. Surgical complexity index

Procedure Required	Assigned Score
Hysterectomy, BSO, Omentectomy	1
Pelvic lymphadenectomy	1
Paraaortic lymphadenectomy	1
Pelvic/ abdominal peritoneum stripping	1
Small bowel resection	1
Large bowel resection	2
Diaphragm stripping or resection	2
Splenectomy	2
Liver resection	2
Rectosigmoidectomy w/ reanastomosis	3
VAT or Intrathoracic resection	3
Surgical complexity score (total)	/19

Surgical Complexity Index. Modified from criteria in a previously published prediction model. Calculated by a gynecologist oncologist from most recent CT abdomen, pelvis, and chest at the discussion in multidisciplinary ovarian cancer rounds.

Abstract 40 Figure 1

rounds. Decision for primary debulking (PDS) or neoadjuvant chemotherapy was made based on radiologic and clinical factors. For the IPM we used: 1. Patient factors score (Age, ECOG, albumin) 2. Resectability score: designated radiologists scored specific radiologic criteria (previously identified as associated with suboptimal debulking). 3. Surgical complexity index: surgeons scoring of anticipated procedures required to achieve OD.

Surgical outcome, complications and time to chemotherapy were recorded.

Results Ninety-five patients met inclusion criteria (October-2018 to August-2019). Forty-four (47%) underwent PDS: 39 (89%) had optimal debulking: 12 to <1 cm and 27 to no visible residual disease. 5/44(11%) had ‘open-and-close’ procedure due to non-resectable disease at the time of surgery.

Median Length of stay was 6 days, (1–14d), time from surgery to chemo was 25 days, (7–42d), and grade 3 complications were recorded in 9 patients (20%).

Patients triaged to PDS were significantly younger (median 57 vs. 67, $p < 0.0001$), had lower patient factors scores (median 0.5 vs 2 $p < 0.0001$), lower resectability score (median 2 vs. 4, $p < 0.0001$) and lower surgical complexity index (median 5 vs. 9 $p < 0.0001$).

Conclusion IPM is an effective clinical tool in managing patients with newly diagnosed AOC, and can be utilized to select patients who will benefit from PDS.

IGCS20_1214

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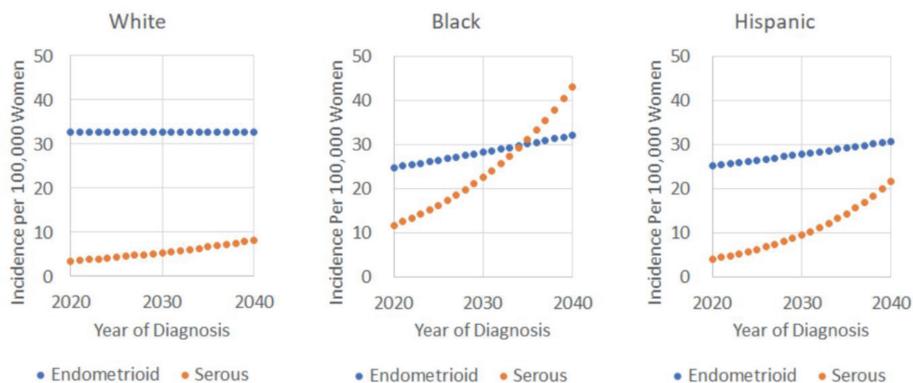
INCREASE IN UTERINE SEROUS CARCINOMA: WILL IT SURPASS UTERINE ENDOMETRIOID CANCER? A POPULATION ANALYSIS OF 720,984 UTERINE CANCER PATIENTS

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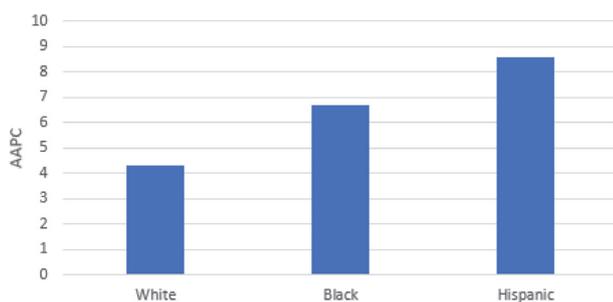
Objective To evaluate the trends of uterine serous carcinoma compared to endometrioid uterine cancer.

Methods From 2001–2016, incidence rates were estimated from United States Cancer Statistics after correcting for



Abstract 41 Figure 1

Average Annual Percent Change of Incidence of Uterine Papillary Serous Cancer by Race



Abstract 41 Figure 2

hysterectomy prevalence based on Behavioral Risk Factor Surveillance System data. SEER*Stat and Joinpoint regression were used to calculate incidence (per 100,000) and average annual percent change (AAPC).

Results Of 720,984 patients (78% White, 10% Black, 8% Hispanic, 3% Asian/Pacific-Islander), the proportion of endometrioid, uterine serous carcinoma (USC), clear-cell, and sarcoma were 73.7%, 5.9%, 1.3%, and 2.0% respectively. In 2016, incidence of endometrioid was approximately 10-fold higher than USC (30.6 vs. 3.6). Of USC patients, the age group with the highest incidence was 75–79 year olds (24.7). Of note, Blacks had the highest incidence of USC at 9.1 compared to 3.0 in Whites.

Over the 15 year study period, there was a 4.6% increase in USC per year compared to no increase in endometrioid cancer ($p < 0.05$).

Of USC patients, the highest increase was in ages 70–74 (AAPC 5.7%). Blacks, Hispanics, and Whites had an annual increase of +6.7%, +8.6%, and +4.3%, respectively. The intersectionality of age 70–74 and Black with USC had an AAPC of +7.3%. A predictive model shows USC incidence would surpass endometrioid in Blacks within 15 years.

Conclusion Compared to Whites, Blacks have a 3-fold higher overall incidence of uterine serous cancer and is increasing at 6.7% per year. For Black women, this aggressive histology is projected to surpass endometrioid cancer in 15 years.

IGCS20_1450

42 CLINICOPATHOLOGIC PREDICTORS OF EARLY RELAPSE IN ADVANCED EPITHELIAL OVARIAN CANCER; DEVELOPMENT OF PREDICTION MODELS USING NATIONWIDE DATA

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Objective To identify clinicopathologic factors predictive of early relapse (i.e. a platinum-free interval (PFI) of ≤ 6 months) in advanced epithelial ovarian cancer (EOC) in first-line

treatment, and to develop and internally validate risk prediction models for early relapse.

Methods All consecutive patients diagnosed with advanced EOC between 01-01-2008 and 31-12-2015 were identified from the Netherlands Cancer Registry. Patients who underwent debulking and platinum-based chemotherapy as initial EOC treatment were selected. Two prediction models, a pretreatment and postoperative model, were developed. Candidate predictors of early relapse were fitted into multivariable logistic regression models. Model selection was performed using backward selection (p -value < 0.20). Model performance was assessed on calibration and discrimination. Internal validation was performed through bootstrapping to correct for model optimism.

Results A total of 4,557 advanced EOC patients were identified, including 3,171 late or non-relapsers and 1,302 early relapsers. Early relapsers were more likely to have FIGO stage IV, mucinous or clear cell type EOC, ascites, > 1 cm residual disease, and to have undergone interval debulking. The final pretreatment model demonstrated subpar model performance (AUC=0.65 [95%-CI 0.64–0.67]). The final postoperative model based on FIGO stage, histologic subtype, presence of ascites, type of debulking, and residual disease after debulking, demonstrated good model performance (AUC=0.72 [95%-CI 0.71–0.74]). Bootstrap validation revealed minimal optimism of the final postoperative model.

Conclusion A good (postoperative) discriminative model has been developed and presented online that predicts the risk of early relapse in advanced EOC patients. Although external validation is still required, this prediction model can support treatment decision-making in daily clinical practice.

Poster

IGCS20_1001

43 HYPERPROGRESSION OF CHORIOCARCINOMA AFTER TREATMENT WITH PEMBROLIZUMAB

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Objectives We describe the case of a woman with non-gestational, extra-gonadal, choriocarcinoma who developed hyperprogression on pembrolizumab and review the literature regarding this phenomenon in gynecologic cancers.

Methods The medical record was reviewed with close attention to β -hCG trends associated with multiple lines of therapy. A literature review was done to summarize the potential mechanisms behind hyperprogression in response to immune checkpoint blockade.

Results A 49-year old, G2P2 woman with no history of molar pregnancy presented with high-grade fevers, persistent cough and right upper quadrant pain. β -hCG was elevated at 79,000 IU/L and a liver biopsy revealed choriocarcinoma but imaging did not identify a primary tumor. She was initially managed as gestational trophoblastic tumor (GTD) and achieved a brief complete radiographic and biomarker response with EMA-CO chemotherapy. Subsequently, she received TPE and later 5FU. Eventually, molecular analysis was consistent with non-