**Methods** Design: Cohort-study set within recruitment to the GCaPPS-trial (ISRCTN73338115).

AJ women/men >18-years, from the North-London AJ-population were recruited through self-referral. AJ-women/men underwent pre-test counselling for *BRCA*-testing through recruitment clinics (clusters). Consenting individuals provided blood-sample for *BRCA*-testing. Socio-demographic/family-history/knowledge/psychological well-being data along-with benefits/risks/cultural-influences (18-item-questionnaire measuring 'attitude') were collected.

4-item likert-scales analysed initial 'interest' and 'intention-to-test' pre-counselling.

Uni-&-multivariable logistic-regression-models evaluated factors affecting uptake/interest/intention-to undergo *BRCA*-testing. Statistical inference was based on cluster robust standard-errors and joint Wald-tests for significance. Item-Response-Theory and graded-response-models modelled responses to 18-item questionnaire.

Main Outcome Measures: Interest, intention, uptake, attitude towards *BRCA*-testing

**Results** 935 AJ women (67%) and men (33%) underwent pre-test genetic-counselling (mean-age=53.8(S.D=15.02) years). Pre-counselling 96% expressed interest but 60% had clear intention-to undergo *BRCA*-testing. Subsequently 88% opted for *BRCA*-testing. *BRCA*-related knowledge (p=0.013) and degree-level education(p=0.01) were positively and negatively (respectively) associated with intention-to-test. Being married/cohabiting had four-fold higher-odds for *BRCA*-testing uptake (p=0.009). Perceived benefits were associated with higher pre-counselling odds for interest and intention-to undergo *BRCA*-testing. Reduced uncertainty/reassurance were the most important factors contributing to decision-making. Increased importance/concern towards risks/limitations (confidentiality/insurance/emotional-impact/inability to prevent cancer/marriage-ability/ethnic-focus/stigmatization) were significantly associated with lower-odds of uptake-of *BRCA*-testing, and discriminated between acceptors and decliners. Having children had stronger (p=0.005) while male-gender/degree-level-education (p=0.001) had weaker, attitudes towards *BRCA*-testing.

**Conclusions** *BRCA* testing in the AJ population has high acceptability. Pre-test counselling increases awareness of disadvantages/limitations of *BRCA*-testing, influencing the final cost-benefit perception and decision-making on undergoing testing.

# IGCS19-0493

## 82 IDENTIFICATION OF NEOANTIGENS FROM NON-PRIMARY TUMOR TISSUE IN PATIENTS WITH RECURRENT OVARIAN CANCER BY SEQUENCING AND SUBSEQUENT HLA LIGAND MASS SPECTROMETRY

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**Objectives** Adoptive transfer of autologous Tcells specifically targeting neoepitopes derived from tumor mutations has achieved responses in melanoma and other cancers. We sought to identify ovarian cancer neoepitopes.

**Methods** We collected tumor, blood and ascites specimens from ovarian cancer patients. We combined mass spectrometry analysis of MHC class1 peptidomes with parallel sequencing of whole exome and RNA of cancer cells, to identify neoepitopes. Missense mutations were identified by whole exome sequencing and epitopes confirmed by mass spectrometry from ascites. We selected peptides predicted to have high binding affinity to HLA-A*02:01, for *in vitro* Tcell priming. We first validated the immunogenicity of these peptides for priming Tcells with synthesized peptides in healthy HLA-A*02:01+ donors.

**Results** 32 missense mutations were identified in patient's ascites. 7 epitopes were confirmed by mass spectroscopy; 5 were predicted to have high binding affinity to HLA-A*02:01. 3/5 epitopes induced peptide-specific Tcell responses not cross-reactive with native sequences. However, these 3 peptides failed to induce autologous peptide-specific Tcell response in TILs to patient's ascites, nor to autologous tumor cells, suggesting immunosuppression. Interestingly, when autologous tumor cells were pre-treated with IFN-gamma, Tcell responses against tumor cells were observed.

**Conclusions** We demonstrated effective T cell responses against tumor neoantigens, is not only dependent on stimulation of Tcells, but also on efficient epitope processing and presentation on cell surface. While efforts have been focused on activation of Tcell responses, such as immune checkpoint blockade, our study suggests that strategies to modulate tumor cells to efficiently present neoepitopes should be considered for successful immunotherapy against neoantigens.

# IGCS19-0587

## 83 IMPACT OF INTRODUCING EXTENSIVE SURGICAL PROCEDURES TO CYTOREDUCTIVE SURGERY (CRS) IN ADVANCED EPITHELIAL OVARIAN CANCER (EOC) ON RATE OF COMPLETE DEBULKING (CD) AND SURVIVAL

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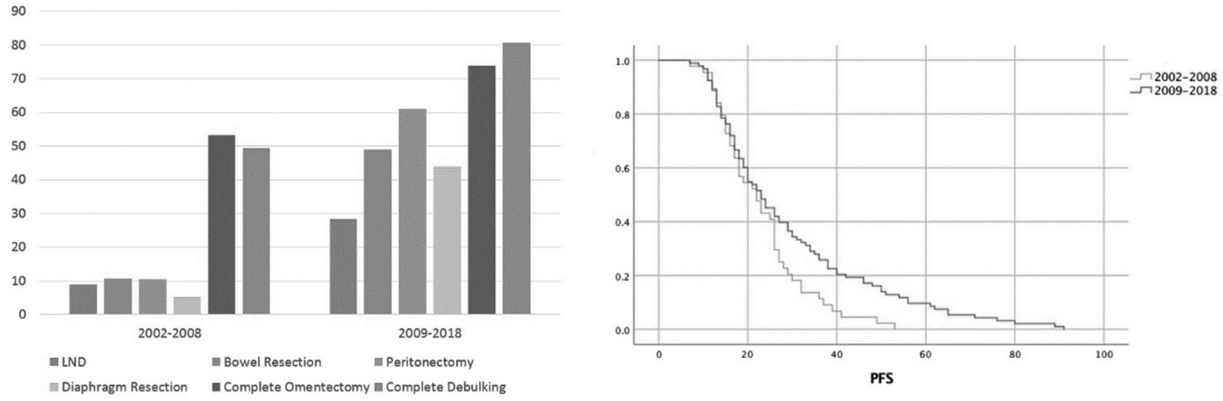
10.1136/ijgc-2019-IGCS.83

**Objectives** To asses the impact of extensive procedures (Diaphragmatic resection, large and small bowel resection, complete peritonectomy, complete omentectomy, paraaortic lmph node dissection, splenectomy, resection of all visible disease) in CRS on the rate of CD, progression free (PFS), and overall survival (OS) in patients with advanced EOC.

**Methods** Patients undergoing CRS between 2002–2018 were divided into group#1(2002–2008), and group#2 (2009–2018). Demographic and operative information were retrospectively reviewed.

**Results** 204 patient with EOC (IIIC-IV) underwent CRS between 2002–2018. The number of CRS as well as performing extensive procedures (figure1A) has significantly increased over the whole period (72 in group1 vs 132 in group2: *p*-value<0.001), and this coincided with a significant increase in the CD rate from 50% to 80% (*p*-value<0.001) (figure 1A). In stage IIIC, median PFS was significantly higher in group#2 versus group#1 (22 months, 95%CI 16.80–27.19 and 23




**Abstract 83 Figure 1** (A) Extensive Procedures and rate of CD. (B) PFS in stage IIIC

months, 95%CI 19.11–26.80 respectively; HR:0.965, *p*-value=0.036) (figure 1B). However, OS in stage IIIC was not significantly different. In stage IV, there was no statistically significant difference in PFS or OS between groups.

**Conclusions** Introducing extensive procedures did significantly affect the PFS in stage IIIC but not in IV. OS was not affected in both stages. The increase in number of EOC cases over the years (72 before 2009 versus 132 after 2009), which was associated with more patients with extensive tumor load and low perfomance status being admitted to our service, coupled with their shorter follow up versus patients from before 2009, may have led to the non-significant increase in OS over time.

# IGCS19-0347

## 84 CYTOREDUCTION FOLLOWED BY HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY (CRS+HIPEC) IN ADVANCED PERITONEAL CARCINOMATOUS (APC) AT THE AMERICAN UNIVERSITY OF BEIRUT MEDICAL CENTER (AUBMC): A RETROSPECTIVE REVIEW

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10.1136/ijgc-2019-IGCS.84

**Objectives** To review the outcome of patients with APC who underwent CRS+HIPEC by the HIPEC team at the AUBMC.

**Methods** All patients with APC were evaluated by the HIPEC team for eligibility and the majority had either gastrointestinal or gynecological malignancies. We retrospectively reviewed data related to their demographics/tumor origin/surgical completeness/adverse events/outcome.

Results between 2007 and 2018, 53 patients (45% were females) had CRS and HIPEC. 20 (37.6%) had Pseudomyxoma peritonei (PMP), 12 (23%) ovarian cancer, 14 (26.4%) colorectal cancer, 4 (7.5%) had gastric cancer, 2 (3.7%) had Mesothelioma and one (1.8%) Desmoplastic round cell tumor. Operative and Postoperative demographics and survivals are shown in tables 1 and 2. Median progression free (PFS) and overall survival (OS) are expressed in months.

**Abstract 84 Table 1** Operative and postoperative data

| Completion of Cytoreduction (CC) | N (%) |
|---|---|
| CCO(complete) | 43(81) |
| CCI(<2.5mm) | 8(15) |
| CC2(>2.5mm-2.5cm) | 2(4) |
| Peritoneal Carcinomatosis Index (PCI) | 18(4–39) |
| Postoperative complications | |
| Grade III | 7 (13) |
| Grade IV | 4(7.5) |
| Grade V | 1 (1.8) |
| Hospital stay | 14.3±7 |

**Abstract 84 Table 2** Survival data

| Tumor | PFS | OS |
|---|---|---|
| Ovarian Cancer | 17.0 | 52.0 |
| Colorectal Cancer | 15.0 | 43.0 |
| PMP | 30.0 | 72.0 |
| Gastric Cancer | 9.0 | 11.0 |

**Conclusions** We report the successful establishment of an active peritoneal surface malignancy multidisciplinary treatment program with results comparable to other centers. Careful patient selection, a multidisciplinary approach and proper surgical training and technique are essential for the success of such a program.