2021 ASCO® ANNUAL MEETING

DENDRITIC CELL VACCINE (DCVAC) COMBINED WITH CHEMOTHERAPY (CMT) IN PATIENTS WITH NEWLY DIAGNOSED EPITHELIAL OVARIAN CARCINOMA (EOC) AFTER PRIMARY DEBULKING SURGERY (PDS): BIOMARKER EXPLORATORY ANALYSIS OF A PHASE 2, OPEN-LABEL, RANDOMIZED, MULTICENTER TRIAL (SOV01, NCT02107937)

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Patients

N=99
1:1:1 randomization
Women with ovarian carcinoma[1] eligible to receive first-line standard of care chemotherapy after optimal primary debulking surgery
(<1 cm max. residuum)

Regimen

- **Parallel**[2] **DCVAC/OvCa** with platinum-based chemo[3]
- **Sequential**[4] **DCVAC/OvCa** after platinum-based chemo[3]
- **Standard-of-care** platinum-based chemo[3]

End points

Primary: PFS at 2 yrs after randomization

Secondary/exploratory:
OS, proportion of patients in remission after 6 and 12 months, biological PFI, immune response, proportion of patients requiring 2nd-line chemo, TFST, AEs, changes in QoL, **predictive and prognostic biomarkers**

1) Epithelial cancer of the ovary, fallopian tube and peritoneum, FIGO stage III, serous, endometrioid, or mucinous PS 0 – 2, <1 cm max. residuum, no prior systemic therapy
2) 5 doses of DCVAC/OvCa concomitantly with platinum-based chemo, continued 5 doses of DCVAC/OvCa as maintenance; 1 × 10^7 DCs/dose
3) Carboplatin (AUC 5-7) + paclitaxel (175 mg/m^2), 6 cycles
4) 10 doses of DCVAC/OvCa as maintenance subsequent to platinum-based chemo; 1 × 10^7 DCs/dose

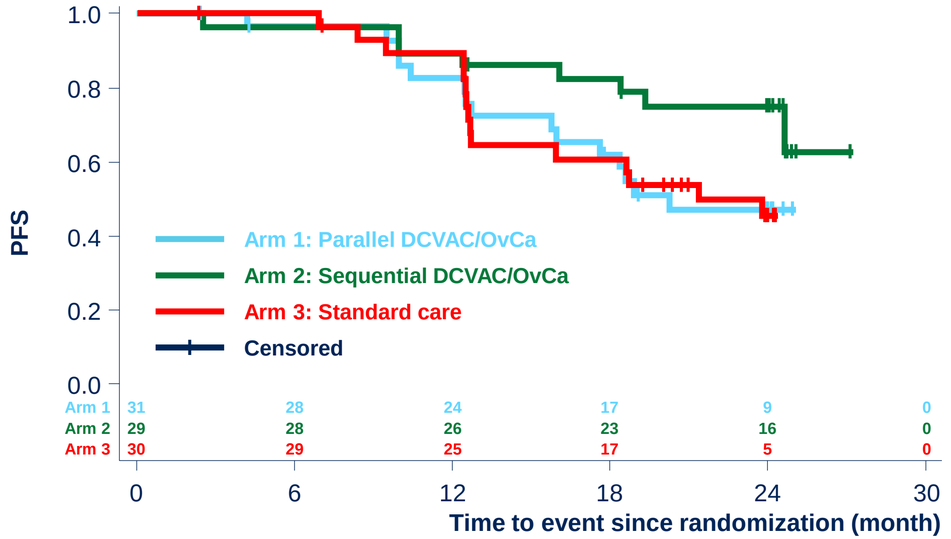
Characteristics, mITT population (all randomized patients except those DCVAC/OvCa who failed to receive at least 1 dose of DCVAC/OvCa; primary population)	**Statistic**	**Parallel DCVAC (N=31)**	**Sequential DCVAC (N=29)**	**SoC (N=30)**
Age at randomization (derived) [years]	n	31	29	30
	Mean (StD)	58.7 (12)	55.8 (11.4)	61.3 (7.5)
	Median	61.7	55.9	62.3
Type of epithelial ovarian cancer	n	31	29	30
Endometrioid	n (%)	2 (6.5%)	6 (20.7%)	1 (3.3%)
Mucinous	n (%)	1 (3.2%)	0	0
Serous	n (%)	28 (90.3%)	23 (79.3%)	29 (96.7%)
Post-surgery residual lesion	n	31	29	30
Maximal residuum <1 cm	n (%)	4 (12.9%)	5 (17.2%)	5 (16.7%)
Zero residuum	n (%)	27 (87.1%)	24 (82.8%)	25 (83.3%)
$CD8^+$ T cells count/mm^2 in tumor tissue (collected as exploratory characteristic)	n	29	23	26
	Mean (StD)	91 (147.9)	198.6 (252.4)	117.4 (116)
	Median	40.4	110.5	85.5

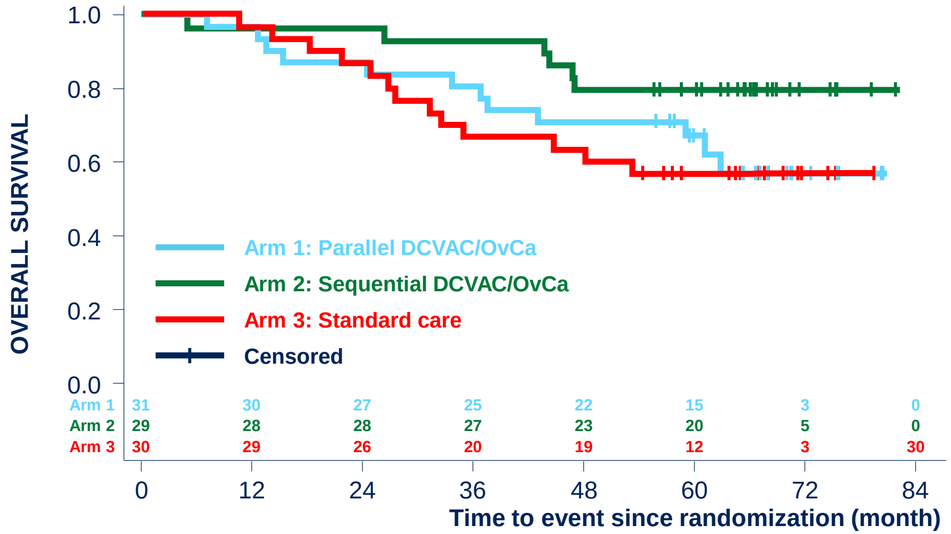
No clinically relevant difference affecting the efficacy comparison except CD8+ counts (lowest in parallel DCVAC/OvCa)

Final analysis: PFS and OS on primary analysis population

PFS	Parallel DCVAC	Sequential DCVAC	SoC
Patient count	31	29	30
Median time (months)	20.3	NA	21.4
Comparison vs. SoC arm			
HR estimate	0.98	0.39	
HR 95% CI	(0.48; 2.00)	(0.16; 0.96)	
Log-rank p-value	0.9483	0.0336	

OS	Parallel DCVAC	Sequential DCVAC	SoC
Patient count	31	29	30
Median time (months)	NA	NA	NA
Comparison vs. SoC arm			
HR estimate	0.84	0.40	
HR 95% CI	(0.38; 1.84)	(0.15; 1.06)	
Log-rank p-value	0.6631	0.0557	

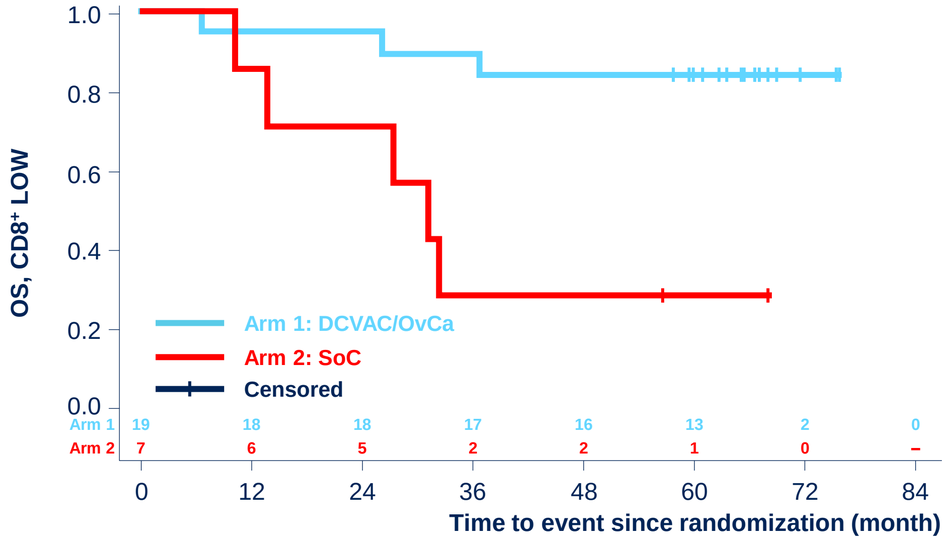




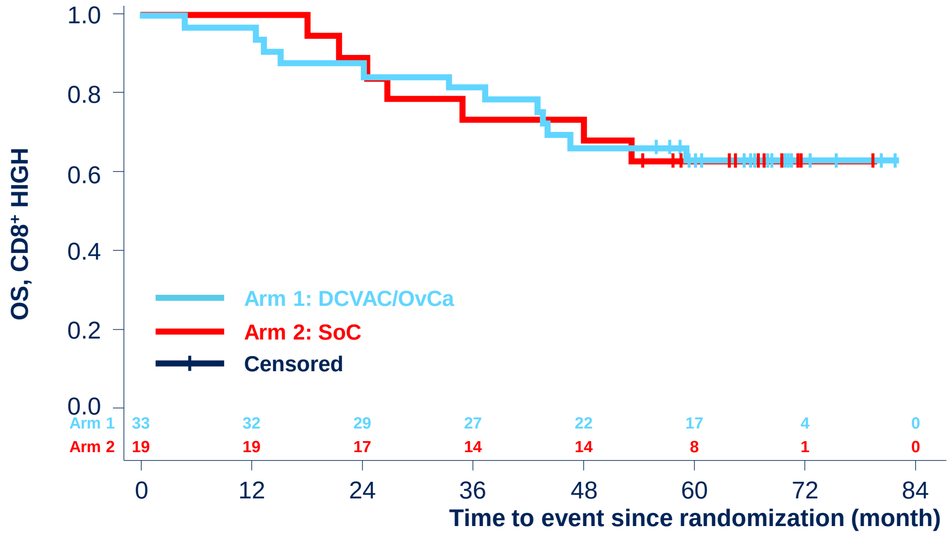
Significant PFS benefit of sequential DCVAC/OvCa as compared to SoC only

Final analysis: OS on primary analysis population per CD8+ T cells levels (threshold 30 CD8+ T cells/mm²)

OS low CD8+ T cells levels	DCVAC	SoC
Patient count	19	7
Median time (months)	NA	31.2
Comparison vs. SoC arm		
HR estimate	0.15	
HR 95% CI	(0.04; 0.65)	
Log-rank p-value	0.0038	



OS high CD8+ T cells levels	DCVAC	SoC
Patient count	33	19
Median time (months)	NA	NA
Comparison vs. SoC arm		
HR estimate	0.99	
HR 95% CI	(0.39; 2.52)	
Log-rank p-value	0.9830	



Significant OS improvement by DCVAC/OvCa in patients with low CD8+ T cells levels in tumor

Consistent trend observed also on ITT population

Final analysis: Patients with treatment-emergent AEs in the safety population Suspected relationship to DCVAC/OvCa (per investigator)

MedDRA primary system organ class Preferred term	Parallel DCVAC (N=34)	Sequential DCVAC (N=32)
Any TEAE	2 (5.9%)	2 (6.3%)
General disorders and administration site conditions	1 (2.9%)	1 (3.1%)
Inflammation	1 (2.9%)	0
Injection site erythema	0	1 (3.1%)
Injection site pain	0	1 (3.1%)
Skin and subcutaneous tissue disorders	1 (2.9%)	0
Erythema	1 (2.9%)	0
Immune system disorders	0	1 (3.1%)
Drug hypersensitivity	0	1 (3.1%)

DCVAC/OvCa is well tolerated regardless of DCVAC/OvCa administration schedule

Summary

01

Combination of Pt-based chemo with DCVAC may potentially be beneficial in optimally debulked patients, markedly prolonging PFS and OS

02

Exploratory analyses shown $CD8^+$ T cells potential as a predictive marker of DCVAC/OvCa clin. efficacy

- Reduction of number of deaths in patients with low $CD8^+$ T cells count. Death occurrence over 4-year follow-up: **17%** in parallel DCVAC vs. **14%** in sequential DCVAC vs. **71%** in SoC

03

$CD8^+$ T cells count allows a selection of patients who benefit the most from DCVAC application

- Optimal PDS reduce the initial tumor burden, improving patient prognosis
- Pt- based chemo regimens improves immune effector cells function, (including DCs and $CD8^+$ T cells), and induce the immunogenic cell death

04

Addition of DCVAC to first-line chemotherapy is safe and well tolerated