

EV-302: Long-term subgroup analysis from the phase 3 global study of enfortumab vedotin in combination with pembrolizumab (EV+P) vs chemotherapy (chemo) in previously untreated locally advanced or metastatic urothelial carcinoma (la/mUC)

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Objective

To provide long-term efficacy and safety results from the EV-302/KEYNOTE-A39 (NCT04223856) study in subgroups of patients of clinical interest, including those defined by primary disease site of origin and metastatic site

Conclusions

- EV+P continues to demonstrate superior efficacy versus chemotherapy across prespecified subgroups after a median of ≈2.5 years of follow-up, with a magnitude of benefit aligned with the overall population
- AE frequencies across subgroups were generally consistent with those in the overall population
- These data reinforce EV+P as the standard of care for the 1L treatment of patients with la/mUC

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Abbreviations

1L, first line; AE, adverse event; AESI, adverse event of special interest; AEOSI, adverse event of special interest; AJCC, American Joint Committee on Cancer; BICR, blinded independent central review; CPS, combined positive score; CR, complete response; DOR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; EV, enfortumab vedotin; gem, gemcitabine; GFR, glomerular filtration rate; HR, hazard ratio; INV, investigator; IV, intravenously; ITT, intent to treat; la/mUC, locally advanced or metastatic urothelial cancer; LN, lymph node; M, metastasis; mets, metastases; N, nodes; NE, not estimable; NYHA, New York Heart Association; OS, overall survival; ORR, overall response rate; P, pembrolizumab; PD-(L)1, programmed death (ligand) 1; PFS, progression-free survival; plat, platinum; PR, partial response; R, randomization; RECIST, Response Evaluation Criteria in Solid Tumors; TEAE, treatment-emergent adverse event; TRAE, treatment-related adverse event.

References

- Powles T, et al. N Engl J Med. 2024;390:875-88.
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- A genAI tool (03/10/25; Pflzer; GPT-4o) developed the first draft of this poster; the authors assume content responsibility

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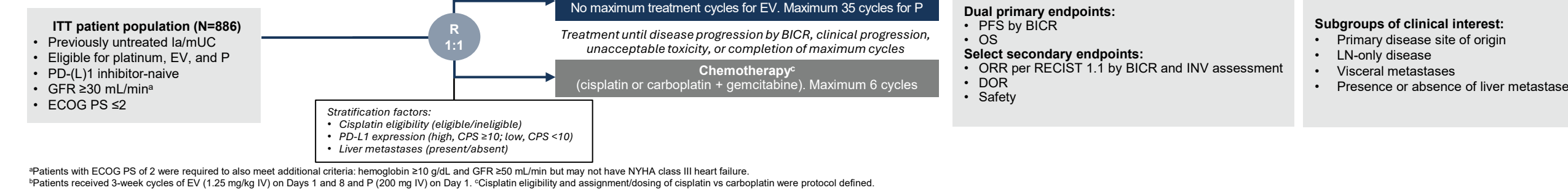
Presented at ASCO 2025; May 30-June 3, 2025; Chicago, IL, USA; Abstract 4571

Background

- The pivotal, phase 3 EV-302 study demonstrated significant improvements in PFS, OS, and ORR for EV+P versus chemotherapy in patients with previously untreated la/mUC¹
- Results from EV-302 led to EV+P becoming the new 1L standard of care for la/mUC^{2,3}
- Updated OS results from EV-302 after a median of ≈2.5 years of follow-up showed a median OS of 33.8 months in patients treated with EV+P⁴
- In the EV-302 primary analysis, clinical benefit of EV+P was consistent between the ITT population and all prespecified subgroups¹
- Here, we present updated longer-term efficacy and safety analyses in prespecified subgroups of clinical interest after a median of ≈2.5 years of follow-up, including those defined by primary disease site of origin and metastatic site (lymph node–only disease, visceral metastases, and liver metastases)

Methods

Figure 1. EV-302 Study Design¹



Results

Figure 2. PFS by BICR in Subgroups of Interest

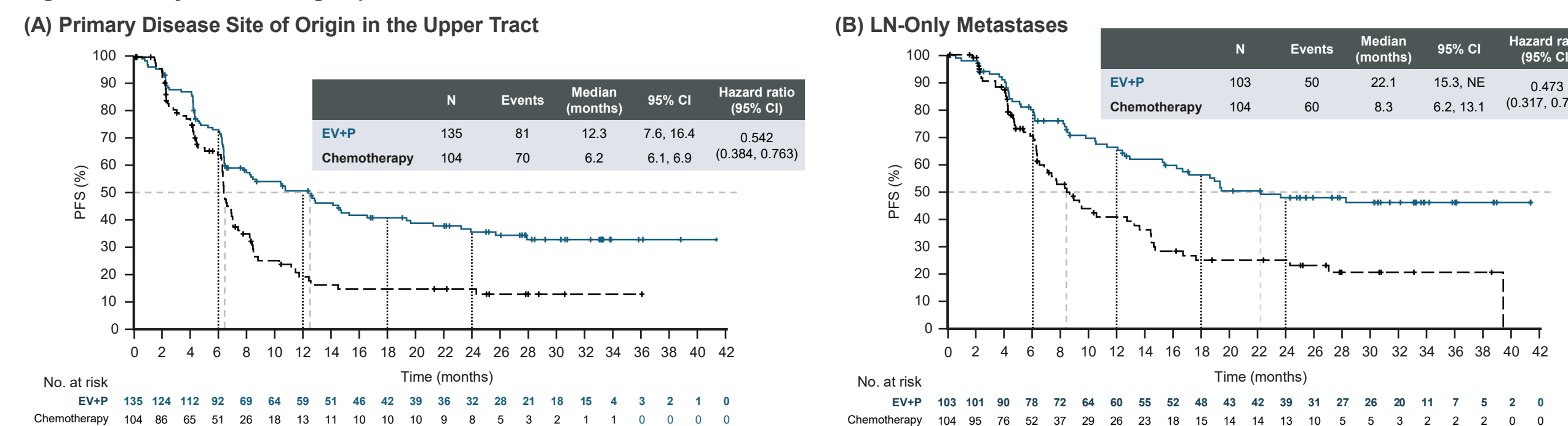
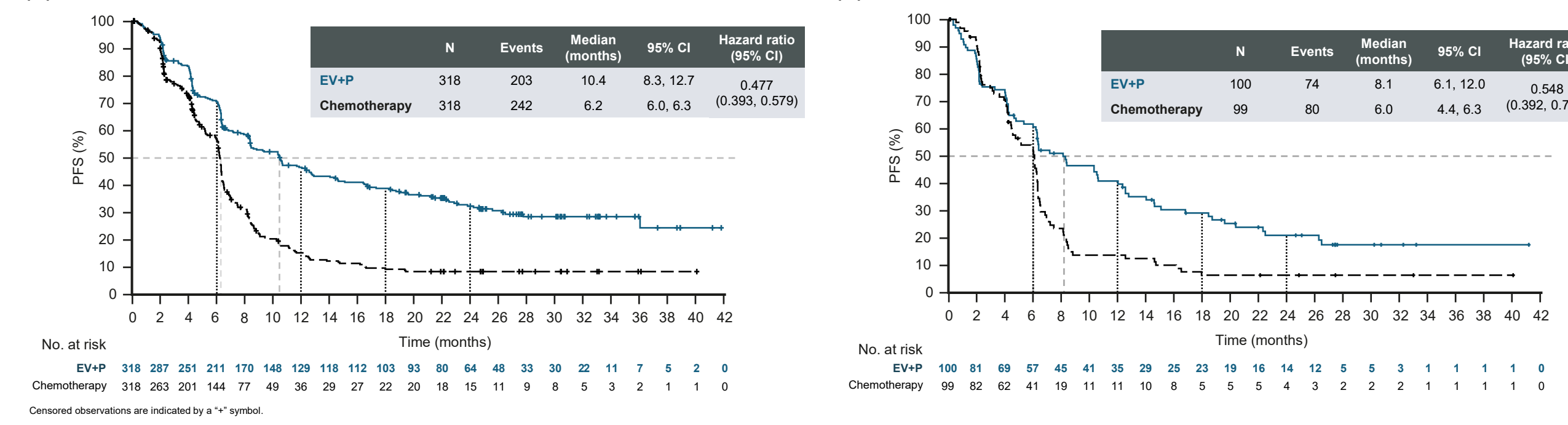


Figure 3. OS in Subgroups of Interest



Patients

- A total of 886 patients were randomized: 442 to the EV+P arm and 444 to the chemotherapy arm
- At data cutoff (August 8, 2024), median follow-up was 29.1 months (95% CI, 28.5, 29.9)
 - 54 patients (12%) remained on EV+P treatment, and no patients remained on chemotherapy
 - 218 patients (49%) in the EV+P arm and 131 patients (30%) in the chemotherapy arm remained on study

Baseline characteristics

Baseline characteristics are shown in Table 1

Efficacy in prespecified subgroups

- PFS by BICR, OS, ORR, and DOR continued to demonstrate sustained benefit of EV+P versus chemotherapy across prespecified subgroups after longer-term follow-up (Figures 1-3; Supplementary online content)

Overall TRAEs across prespecified subgroups

- TRAE frequencies across subgroups (Table 2) were generally consistent with the ITT population¹ (Supplementary online content)
 - For EV+P, any-grade TRAEs occurred in 96.0%-98.5% and Grade ≥3 TRAEs in 53.4%-60.7% of patients across prespecified subgroups
 - For chemo, any-grade TRAEs occurred in 94.8%-96.9% and Grade ≥3 TRAEs in 66.7%-74.0% of patients across prespecified subgroups

Treatment-related AESI for EV

- In the EV+P arm, treatment-related AESIs for EV were primarily low grade (Table 3)

Treatment-emergent AEOSI for P

- In the EV+P arm, treatment-emergent AEOSIs for P were primarily low grade (Table 4)

Table 1. Key Baseline Demographics and Disease Characteristics

Characteristic	Upper tract		Lower tract		LN-only mets		Visceral mets present		Liver mets present		Liver mets absent	
	EV+P n=135	Chemotherapy n=104	EV+P n=305	Chemotherapy n=339	EV+P n=103	Chemotherapy n=104	EV+P n=318	Chemotherapy n=318	EV+P n=100	Chemotherapy n=99	EV+P n=342	Chemotherapy n=345
Age												
Median (range), years	68.0 (40, 84)	68.0 (45, 86)	69.0 (37, 87)	69.0 (22, 91)	68.0 (37, 87)	69.0 (35, 91)	69.0 (40, 86)	69.0 (22, 87)	69.0 (40, 86)	69.0 (22, 86)	69.0 (37, 87)	69.0 (32, 91)
Sex, n (%)												
Male	68 (50.4)	70 (67.3)	254 (83.3)	265 (78.2)	80 (77.7)	76 (73.1)	246 (77.4)	246 (77.4)	82 (82.0)	82 (82.8)	262 (76.6)	254 (73.6)
Female	47 (34.8)	34 (32.7)	51 (16.7)	74 (21.8)	23 (22.3)	28 (26.9)	72 (22.6)	72 (22.6)	18 (18.0)	17 (17.2)	80 (23.4)	91 (26.4)
ECOG PS, n (%)												
0	74 (54.8)	49 (47.1)	148 (48.5)	166 (49.0)	58 (56.3)	63 (60.6)	156 (49.1)	139 (43.7)	46 (46.0)	41 (41.4)	177 (51.8)	174 (50.4)
1	59 (43.7)	52 (50.0)	145 (47.5)	164 (48.4)	42 (40.8)	39 (37.5)	150 (47.2)	168 (52.8)	48 (48.0)	53 (53.5)	156 (45.6)	163 (47.2)
2	2 (1.5)	3 (2.9)	12 (3.9)	7 (2.1)	3 (2.9)	1 (1.0)	13 (4.1)	10 (3.1)	6 (6.0)	5 (5.1)	9 (2.6)	6 (1.7)
Primary tumor location, n (%)												
Upper tract	135 (100.0)	104 (100.0)	0	0	20 (19.4)	19 (18.3)	109 (34.3)	82 (25.8)	31 (31.0)	23 (23.2)	104 (30.4)	81 (23.5)
Lower tract	0	0	305 (100.0)	339 (100.0)	82 (79.6)	85 (81.7)	208 (65.0)	235 (73.9)	69 (69.0)	75 (75.8)	236 (69.0)	264 (76.5)
Metastatic category, n (%)												
Visceral metastases	109 (80.7)	82 (78.8)	208 (68.2)	235 (69.3)	0	0	318 (100.0)	318 (100.0)	100 (100.0)	99 (100.0)	218 (63.7)	219 (63.5)
Bone	21 (15.6)	23 (22.1)	60 (19.7)	78 (23.0)	0	0	81 (25.5)	102 (32.1)	25 (25.0)	34 (34.3)	56 (16.4)	66 (19.7)
Liver	31 (23.0)	23 (22.1)	69 (22.6)	75 (22.1)	0	0	100 (31.4)	99 (31.1)	100 (100.0)	99 (100.0)	0	0
Lung	66 (48.9)	50 (48.1)	104 (34.1)	107 (31.6)	0	0	170 (53.5)	157 (49.4)	40 (40.0)	39 (39.4)	130 (38.0)	118 (34.2)
LN-only disease [†]	20 (14.8)	19 (18.3)	82 (26.9)	85 (25.1)	103 (100.0)	104 (100.0)	0	0	0	0	103 (30.0)	104 (30.1)

[†]LN-only disease defined as participants with metastatic disease only in the lymph nodes. Due to the limitation of AJCC staging, patients with bladder cancer that have LN-only disease will have a specific M1a stage, but patients with UC from other primary disease sites may have different MN stages.

Table 2. Overall Summary of TRAEs Across Subgroups

	Upper tract		Lower tract		LN-only mets		Visceral mets present		Liver mets present		Liver mets absent	
	EV+P n=135	Chemotherapy n=97	EV+P n=303	Chemotherapy n=335	EV+P n=103	Chemotherapy n=102	EV+P n=316	Chemotherapy n=309	EV+P n=99	Chemotherapy n=96	EV+P n=341	Chemotherapy n=337
Any TRAE, n (%)	133 (98.5)	92 (94.8)	293 (96.7)	321 (95.8)	100 (97.1)	98 (96.1)	307 (97.2)	295 (95.5)	95 (96.0)	93 (96.9)	333 (97.7)	321 (95.3)
Any Grade ≥3 TRAE, n (%)	82 (60.7)	69 (71.1)	170 (56.1)	231 (69.0)	55 (53.4)	68 (66.7)	185 (58.5)	219 (70.9)	55 (55.6)	71 (74.0)	197 (57.8)	230 (68.2)
Any serious TRAE, n (%)	39 (28.9)	13 (13.4)	90 (29.7)	71 (21.2)	26 (25.2)	18 (17.6)	95 (30.1)	64 (20.7)	32 (32.3)	16 (16.7)	97 (28.4)	69 (20.5)

Table 3. Treatment-Related AESIs for EV in the EV+P Arm

	Upper tract (n=135)		Lower tract (n=303)		LN-only mets (n=103)		Visceral mets present (n=316)		Liver mets present (n=99)		Liver mets absent (n=341)	
	Any grade	Grade ≥3	Any grade	Grade ≥3	Any grade	Grade ≥3	Any grade	Grade ≥3	Any grade	Grade ≥3	Any grade	Grade ≥3
Peripheral neuropathy, n (%)^a	89 (65.9)	10 (7.4)	193 (63.7)	23 (7.6)	72 (69.9)	9 (8.7)	196 (62.0)	22 (7.0)	53 (53.5)	6 (6.1)	230 (67.4)	27 (7.9)
Sensory events	88 (65.2)	8 (5.9)	178 (58.7)	13 (4.3)	67 (65.0)	7 (6.8)	185 (58.5)	13 (4.1)	49 (49.5)	4 (4.0)	218 (63.9)	17 (5.0)
Motor events	8 (5.9)	2 (1.5)	37 (12.2)	12 (4.0)	16 (15.5)	2 (1.9)	28 (8.9)	11 (3.5)	9 (9.1)	3 (3.0)	36 (10.6)	11 (3.2)
Skin reactions, n (%)	96 (71.1)	28 (20.7)	199 (65.7)	42 (13.9)	78 (75.7)	14 (13.6)	203 (64.2)	54 (17.1)	64 (64.6)	12 (12.1)	232 (68.0)	58 (17.0)
Rash	92 (68.1)	27 (20.0)	182 (60.1)	40 (13.2)	68 (66.0)	14 (13.6)	193 (61.1)	51 (16.1)	59 (59.6)	11 (11.1)	216 (63.3)	56 (16.4)
Hyperglycemia, n (%)	13 (9.6)	8 (5.9)	47 (15.5)	20 (6.6)	17 (16.5)	7 (6.8)	39 (12.3)	19 (6.0)	9 (9.1)	6 (6.1)	51 (15.0)	22 (6.5)
Ocular disorders, n (%)	29 (21.5)	0	65 (21.5)	0	24 (23.3)	0	65 (20.6)	0	20 (20.2)	0	75 (22.0)	0
Dry eye	24 (17.8)	0	59 (19.5)	0	21 (20.4)	0	57 (18.0)	0	16 (16.2)	0	68 (19.9)	0
Corneal disorder	3 (2.2)	0										

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Objective

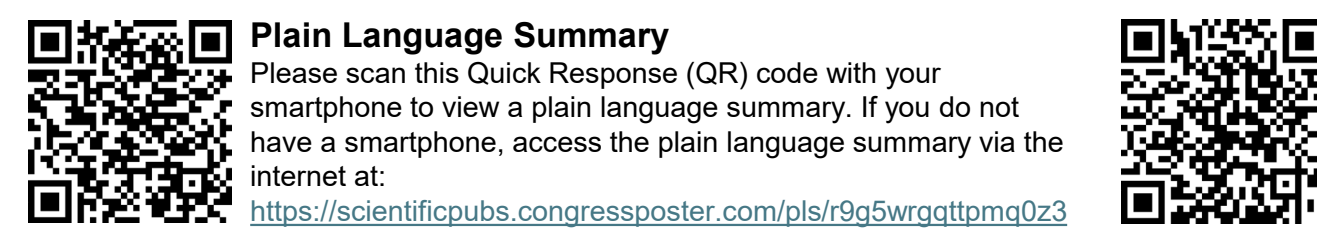
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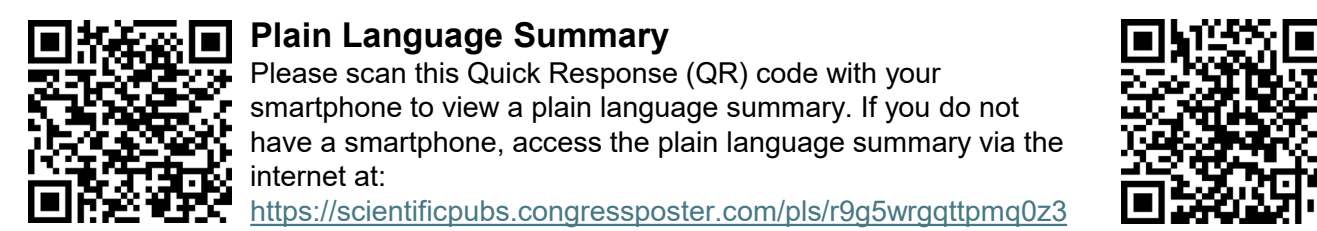
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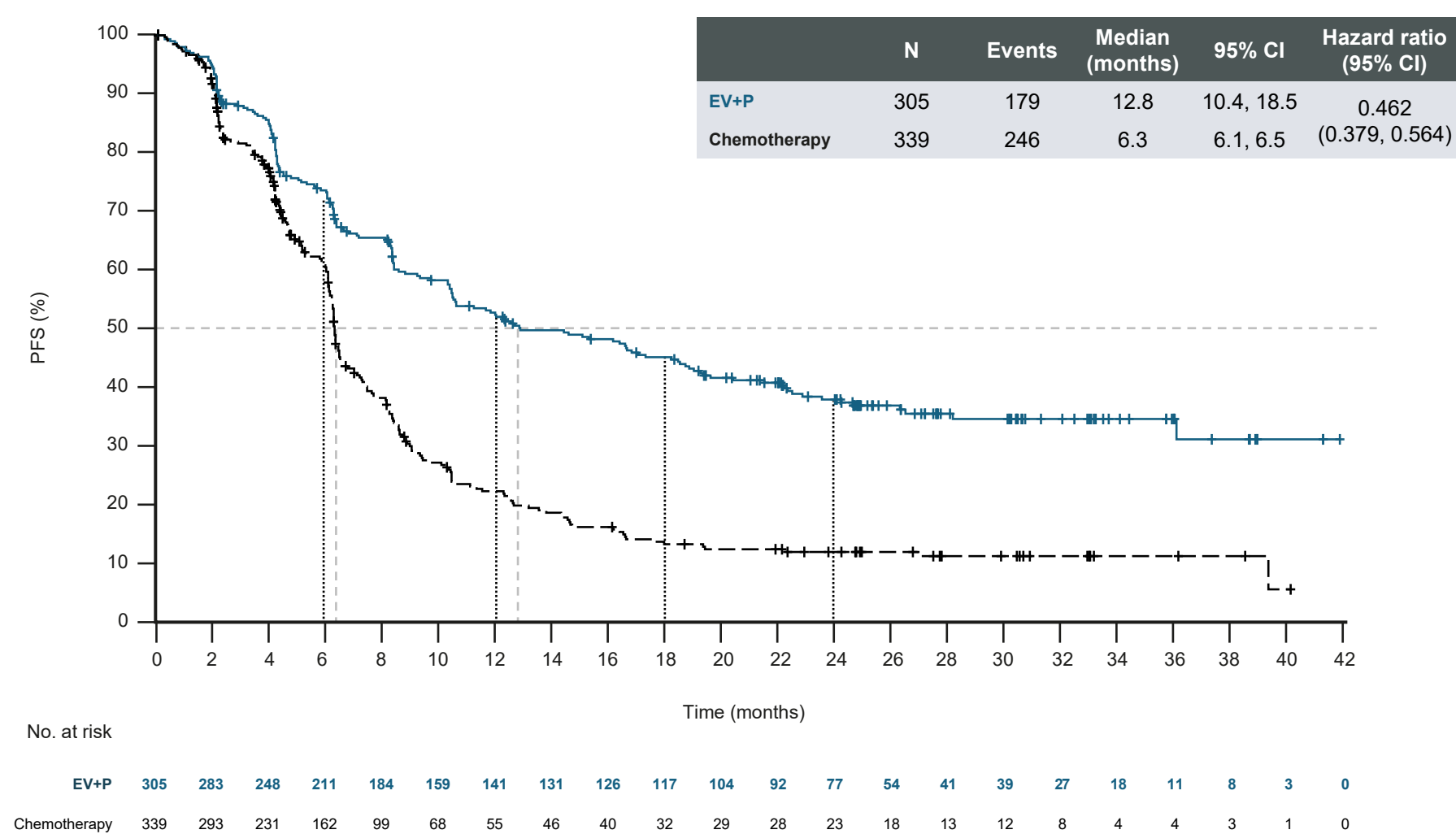
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Table S1. Overall Summary of TRAEs in the ITT population

	ITT	
	EV+P	N=440
Any TRAE, n (%)	428 (97.3)	
Any Grade ≥3 TRAE, n (%)	252 (57.3)	

Figure S1. PFS by BICR in Subgroups of Interest

(A) Primary Disease Site of Origin in the Lower Tract



(B) Absence of Liver Metastases

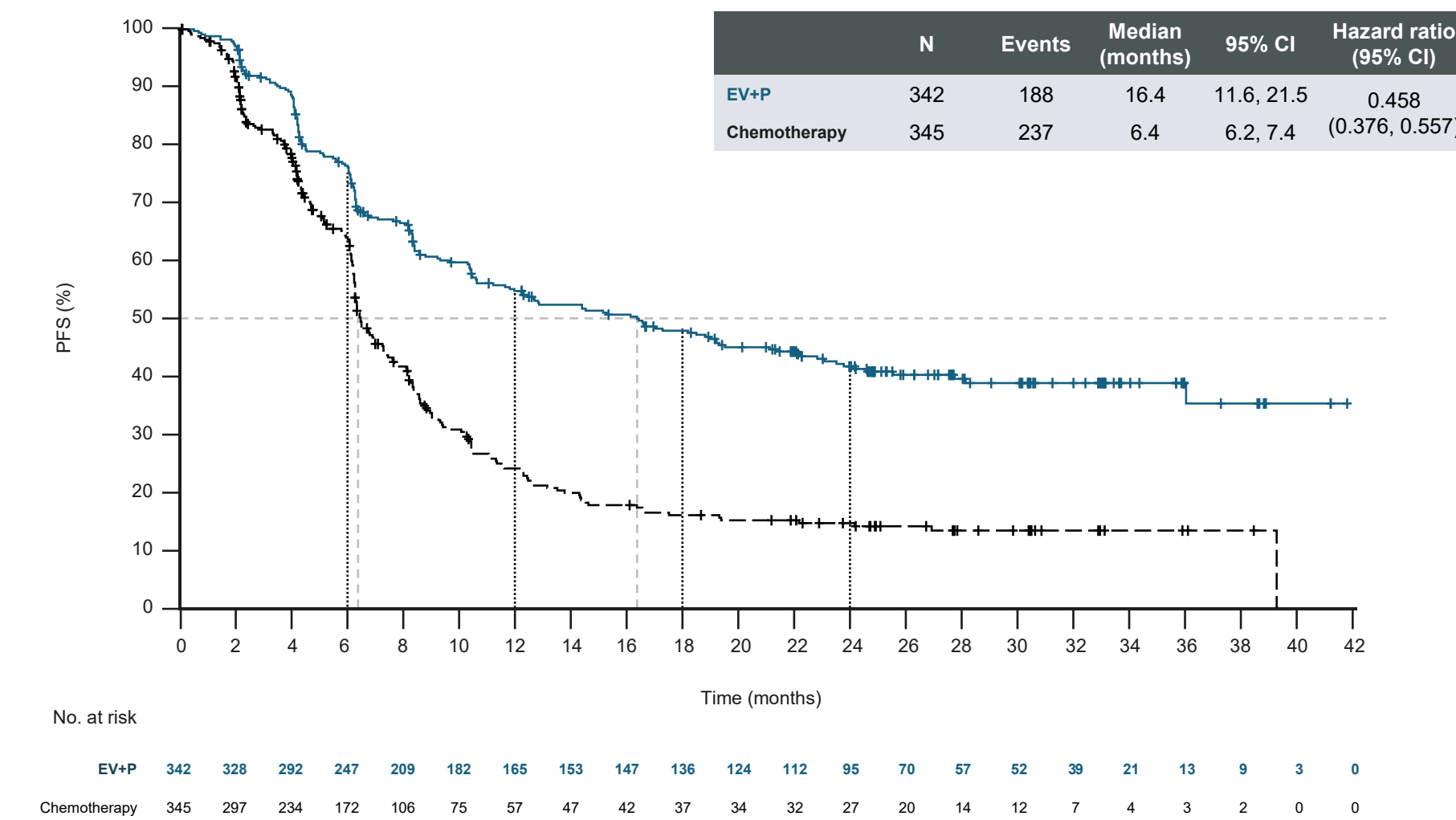
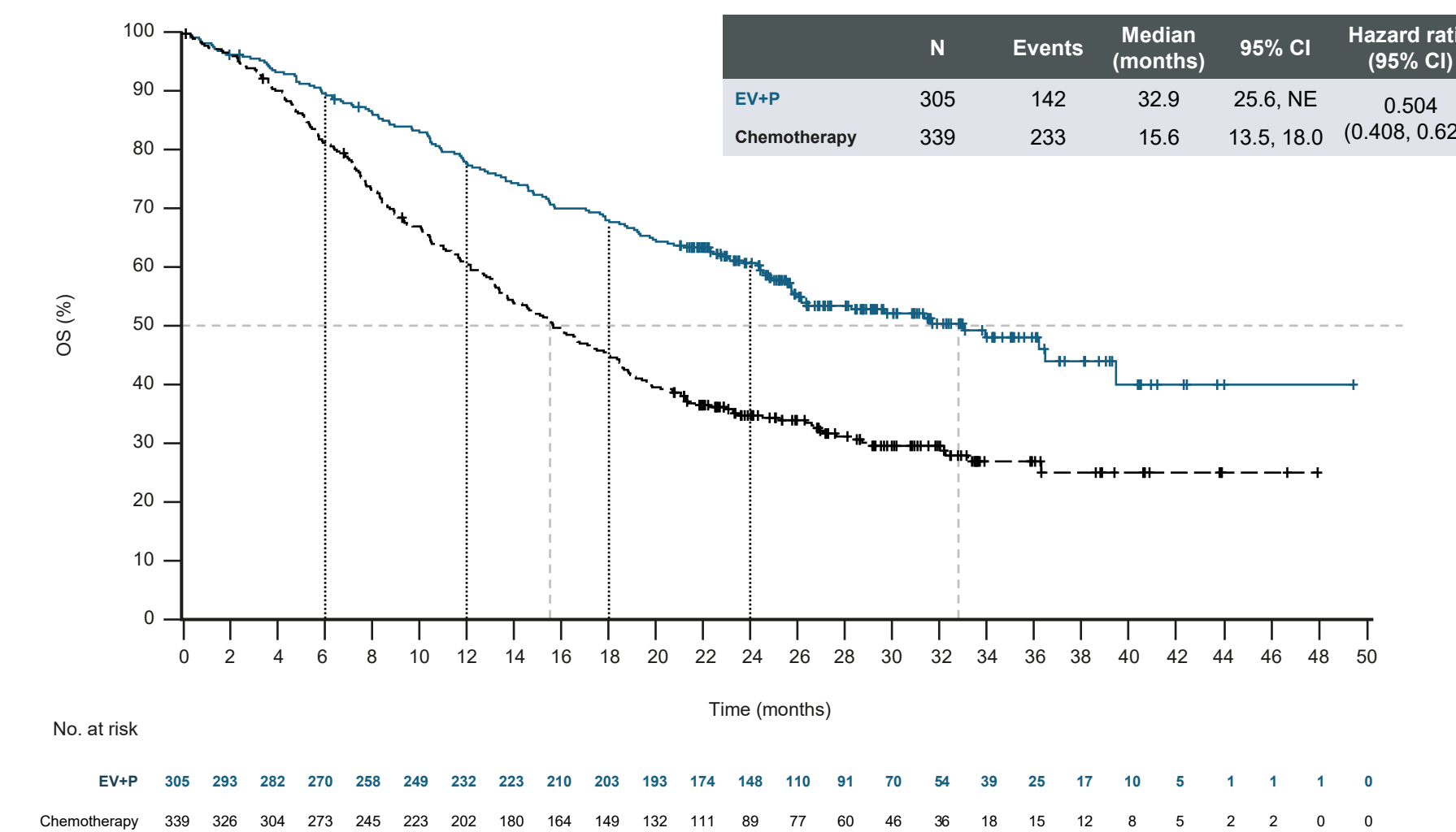


Figure S2. OS by BICR in Subgroups of Interest

(A) Primary Disease Site of Origin in the Lower Tract



(B) Absence of Liver Metastases

