

# Efficacy of talazoparib and avelumab as a maintenance treatment in patients with advanced/metastatic urothelial carcinoma (mUC) whose disease did not progress after a first-line platinum-based chemotherapy (PBCT): The GETUG-TALASUR trial.

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## BACKGROUND

**Avelumab**, an anti-PDL1 antibody, is the standard maintenance treatment after a 1<sup>st</sup> line platinum-based chemotherapy (PBCT) in patients with advanced/metastatic urothelial carcinoma (mUC). **Talazoparib** is an oral PARP inhibitor already approved in BRCA mutated breast cancer. Based on preclinical and clinical data of the synergy between PARP and immune checkpoint inhibitors, this single-arm phase II trial aimed to assess the efficacy of Talazoparib plus Avelumab combination as a maintenance treatment in patients with mUC who obtained objective response (OR) or stable disease (SD) after a 1<sup>st</sup>-line PBCT.

## OBJECTIVES

### MAIN OBJECTIVE

- Efficacy, defined as progression-free survival (PFS) of a maintenance treatment combining Talazoparib and Avelumab in patients with locally advanced/metastatic urothelial carcinoma with a stable or objective response to a platinum-based chemotherapy.

### SECONDARY OBJECTIVES

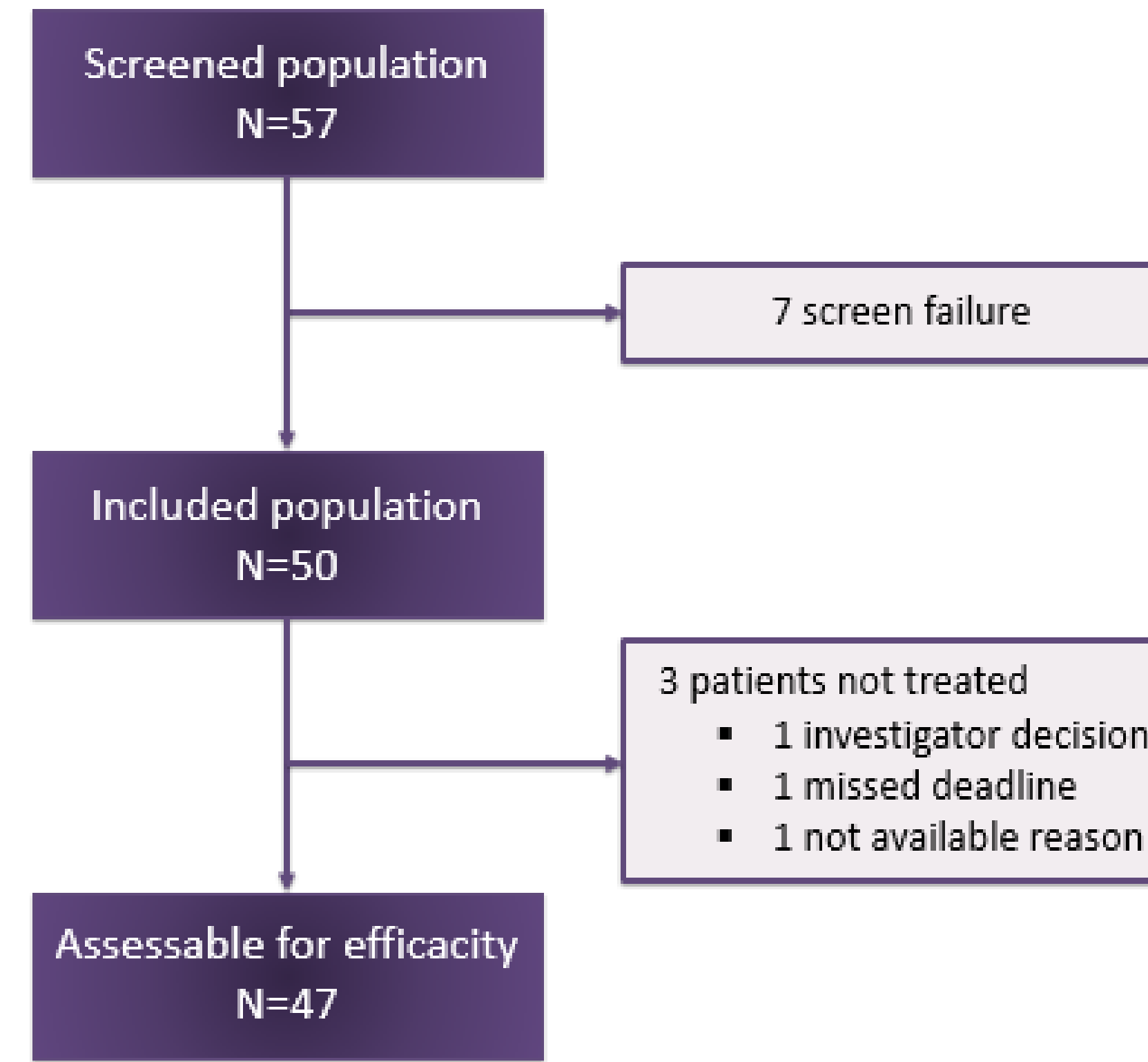
- Safety profile of the combination
- Overall survival (OS)
- Objective response rate (ORR)

### ANCILLARY TUMOR ANALYSIS

- Exploration of HRD status and gene mutations

## FLOW-CHART

50 patients enrolled in 13 French centres from June 2021 to July 2023



## POPULATION

Patients characteristics at inclusion	n = 47
Age (y) - median (min-max)	69 (40-82)
Sex - n (%)	
Male	37 (78.7%)
Female	10 (21.3%)
Performans status - n (%)	
0	14 (29.8%)
1	33 (70.2%)
1 <sup>st</sup> -line chemotherapy - n (%)	
Carboplatin	25 (53%)
Cisplatin	22 (47%)
Best tumoral response - n (%)	
Complete response	5 (10.9%)
Partial response	15 (32.6%)
Stable disease	24 (52.2%)
Not assessable	2 (4.3%)

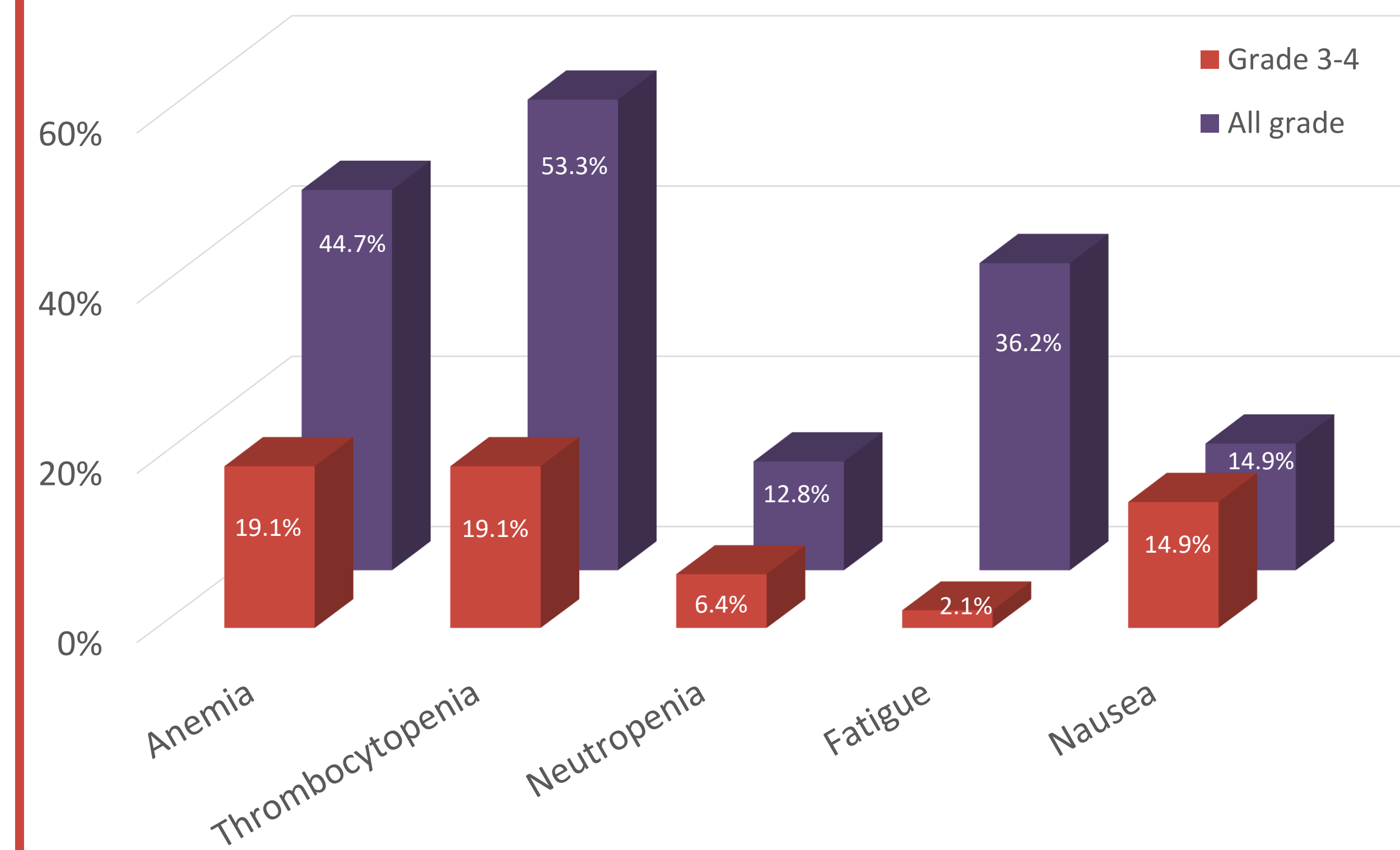
## TREATMENT ADJUSTMENT

n=47	Talazoparib	Avelumab
Dose reduction – n (%)	25 (53.2%)	0 (0%)
Definitive interruption n (%)	3 <sup>a</sup> (6.3%)	2 <sup>b</sup> (4.3%)

<sup>a</sup> Grade 4 thrombocytopenia, grade 3 asthenia, grade 3 renal failure  
<sup>b</sup> Grade 3 interstitial lung disease, grade 2 nausea

## SAFETY

### Most common Talazoparib and/or Avelumab related AEs



Immune-related AEs	Grade
Interstitial lung disease	2
Nausea	2
Infusion related reaction	2
Hyperglycemia	2
Hyperlipasemia	2 & 3

→ Immune-related AEs Gr2-3 were reported in 6 pts

## ANCILLARY TUMOR ANALYSIS

17 available tumor samples :

- 2 tumor samples (12%) BRCA mutated
- 5 tumor samples (29%) with high HRD (nLST≥15)

No link was observed with clinical outcomes.

## STUDY DESIGN

Multicenter, single arm phase II trial<sup>1</sup>

### STUDY POPULATION

- Platinum-sensitive metastatic or locally advanced urothelial carcinoma
- Stage IV disease
- Having received platinum-based chemotherapy
- Stable disease (SD) or partial response (PR) or complete response (CR) to chemotherapy
- All comers patients

### TREATMENT SCHEDULE

Patients enrolled within 8 weeks after the last dose of chemotherapy  
Combined treatment start within 28 days after inclusion.

#### ➤ Talazoparib dosage

1 mg orally once daily in a 28-day cycle.

In case of mild renal impairment (CLCr ≤ 30-59 mL/min) at inclusion, patients received the daily dose of 0.75 mg. Dose adjustments for toxicities:

- 1<sup>st</sup> dose reduction: 0,75 mg/day
- 2<sup>nd</sup> dose reduction: 0,5 mg/day
- 3<sup>rd</sup> dose reduction: 0,25 mg/day

#### ➤ Avelumab dosage

800 mg per IV route, on D1 and D15, in a 28-day cycle.

No dose adaptation

### Statistical considerations

#### SAMPLE SIZE

We used a one arm survival design, considering a median PFS from start of combined treatment of

- 4 months as unacceptable (H<sub>0</sub> hypothesis)
- 7 months as expected (H<sub>1</sub> hypothesis)
- Alpha level of 5% and power of 80%.

→ 45 assessable patients required.

→ To anticipate 10% of non-assessable patients, we planned to enroll 50 patients overall over 18 months of inclusion.

#### DECISION CRITERIA

→ The median PFS should be longer than 5.9 months to conclude to efficacy.

## EFFICACY

After a median follow-up of 17.3 months (95% CI : 2-36),

→ Disease progression (PD): 33 patients (70%)

→ Death: 24 patients (51.1%)

→ Median overall survival : 29.9 months

### Objective response rate (ORR)

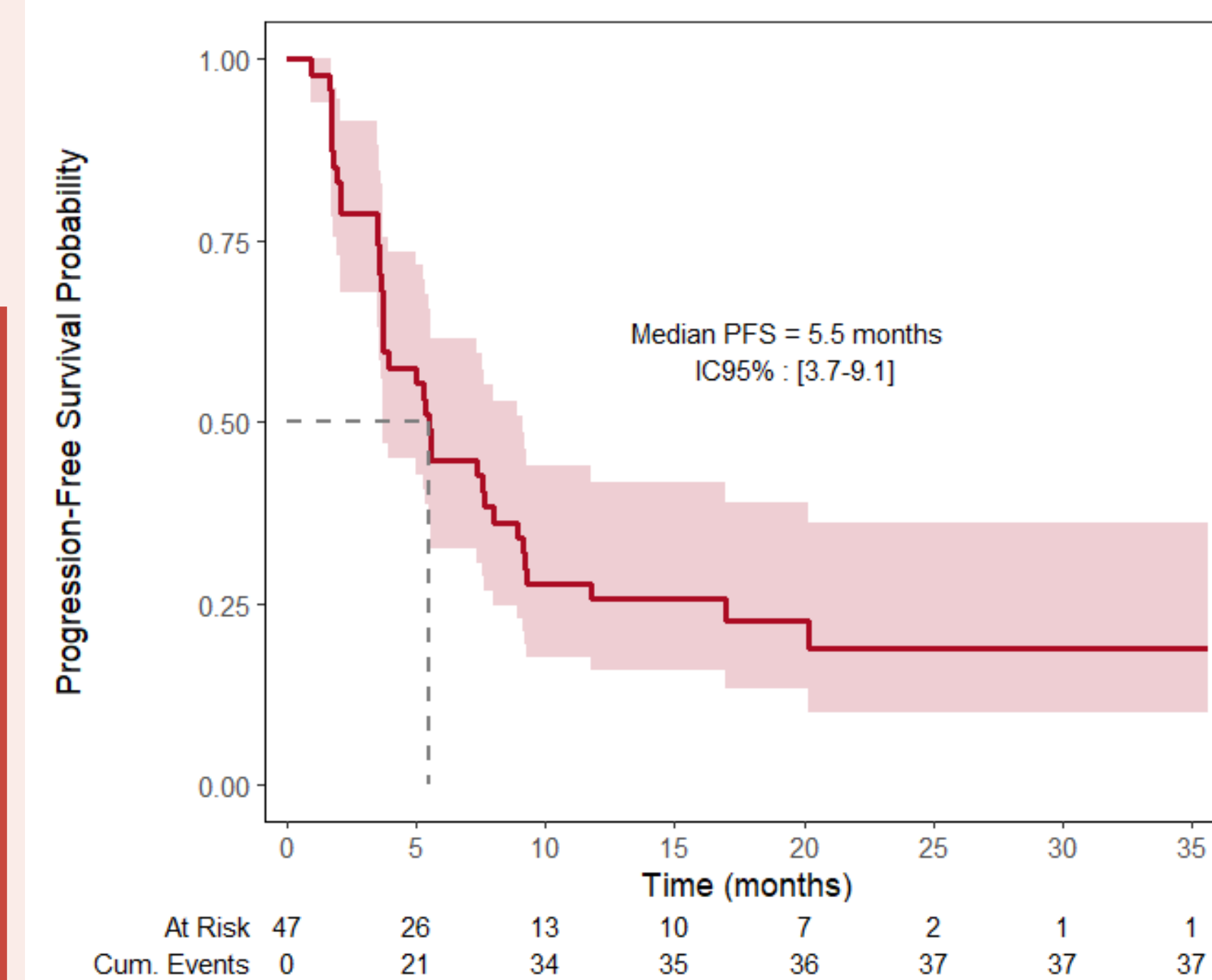
Response	n=47*
CR	10 (22.2%)
PR	1 (2.2%)
SD	23 (51.1%)
PD	11 (24.4%)

**ORR**  
24.4%

\*2 not assessable for response evaluation

Median duration of response : 9.6 months

### Progression-Free Survival



## CONCLUSIONS

Talazoparib plus Avelumab in maintenance treatment of advanced/metastatic urothelial carcinoma did not reach the 5.9 months expected PFS threshold. Results are consistent with the clinical outcomes of Avelumab monotherapy reported in the JAVELIN bladder100 trial<sup>2</sup> and are not in favor of adding PARPi to Avelumab in this mUC population.

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### References

<sup>1</sup> Coquan E, Clarisse B, Lequesne J, Brachet PE, Nevière Z, Meriaux E, Bonnet I, Castera M, Goardon N, Boutros J, Travers R, Joly F, Grellard JM, Thierry-Vuillemin A. TALASUR trial: a single arm phase II trial assessing efficacy and safety of TALAZOPARIB and AVELUMAB as maintenance therapy in platinum-sensitive metastatic or locally advanced urothelial carcinoma. BMC Cancer. 2022 Nov 24;22(1):1213. doi: 10.1186/s12885-022-10216-z. PMID: 36434554; PMCID: PMC9700963.

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