Oncologists' preferences for first-line (1L) treatment of locally advanced/unresectable or metastatic urothelial carcinoma (aUC)

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SCOPE

- **This is a cross-sectional survey study assessing oncologists' preferences for treating aUC using a discrete choice experiment (DCE)**

CONCLUSIONS

- **Overall survival (OS) was the most important attribute driving decision-making among US oncologists for selecting 1L treatment for patients with aUC**
- **Relative to other attributes, oncologists were indifferent between choices of treatment regimens administered once every 3 weeks and those administered with other frequencies, including those administered once per week or once every 2 weeks**
- **Oncologists preferred 1L immune checkpoint inhibitor (ICI) maintenance therapy over other treatment regimens for patients diagnosed with aUC**
 - **This is consistent with the category 1 recommendation for the JAVELIN Bladder regimen from both the National Comprehensive Cancer Network and European Society for Medical Oncology clinical practice guidelines for bladder cancer[1,2]**

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BACKGROUND

- The treatment landscape for patients with aUC has rapidly evolved in recent years[3]
- Platinum-based chemotherapy regimens are still the standard of care in the 1L setting, but ICIs have expanded treatment options for these patients
- Avelumab, a PD-L1 inhibitor, was approved as 1L maintenance therapy for patients with aUC whose disease has not progressed with platinum-based chemotherapy[3]
- Evidence is limited on oncologists' preferences for different 1L pharmacological treatments for patients with aUC

METHODS

- A DCE was used to estimate oncologists' preferences; ISPOR best practices for a conjoint analysis were used to calibrate the attributes and levels of the DCE module[4-6]
 - **Figure 1** illustrates an example DCE choice set
- The survey was administered in March 2021
- Along with 12 discrete choice sets, 18 additional questions were asked to ascertain the oncologists' practice type, years in practice, size of hospital, health insurance, and type of patients
- The survey was completed by a convenience sample of 151 board-certified US oncologists who manage ≥1 patient with advanced bladder cancer per month; oncologists were identified from market research databases
- Random parameters logit was used to estimate weights of oncologists' preferences
- Preference weight was used to derive attribute importance and preference shares

METHODS

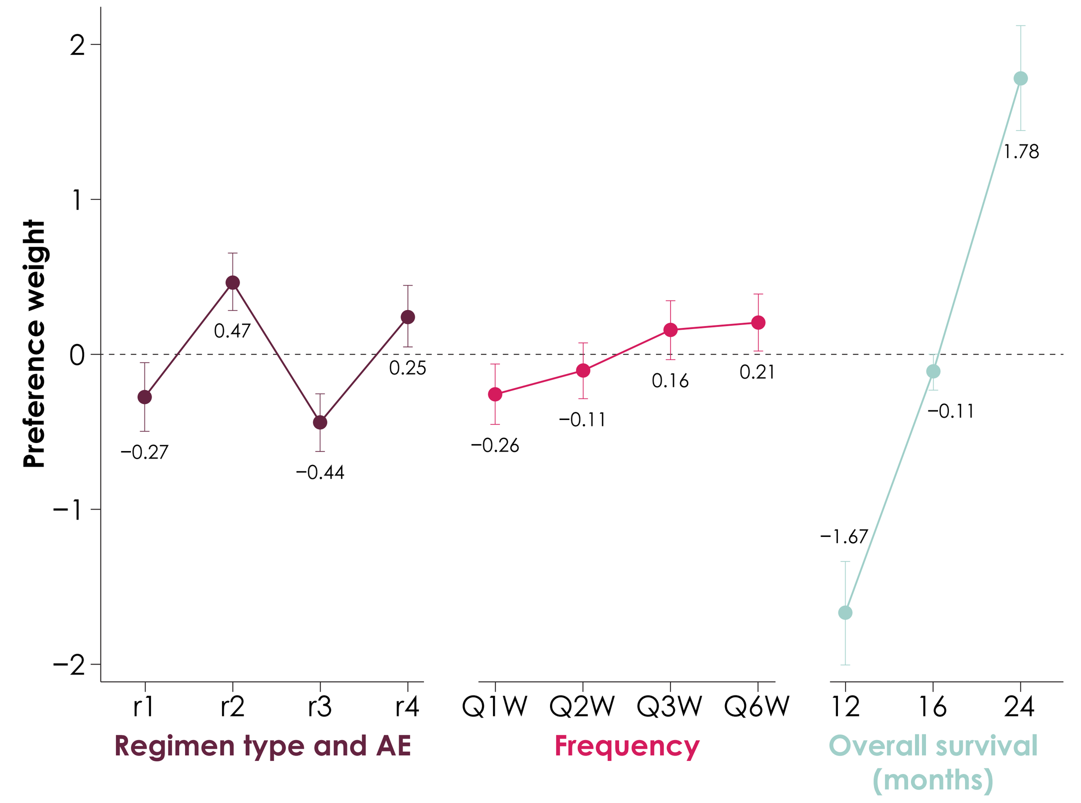
Figure 1. Example DCE choice set

	Treatment A	Treatment B
Treatment course		
Number and duration of medicines given	A B 4 → B Two different medicines (A and B) given for 4 months followed by 1 medicine (B) given until disease progression or unacceptable toxicity	A 4 → B One medicine (A) given for 4 months followed by a different medicine (B) given until disease progression or unacceptable toxicity
Likelihood of experiencing a grade 3 or 4 adverse event	90% chance of side effects → 15% chance of side effects	75% chance of side effects → 15% chance of side effects
Frequency of administration	Once every 3 weeks 3 weeks	Once every 2 weeks 2 weeks
Survival	16 months	24 months
Which treatment would you recommend?	○	○

RESULTS

- Most of the oncologists were men (72%), White (56%), in practice >10 years (81%), and managed ≥5 aUC patients per month (92%) (**Table 1**; **Table 2**)
- OS was the most important attribute, contributing to 74.3% of the decision for choice of treatment regimen (**Figure 2**)
 - 19.7% of the decision was determined by regimen type or grade 3 or 4 treatment-related adverse events
 - Frequency of administration was the least important attribute, contributing to 6% of the decision for choice of treatment regimen
- Among 1L treatments for aUC, 1L ICI maintenance therapy had the highest preference (73%), followed by 1L ICI monotherapy (19%), 1L ICI combination therapy (7%), and 1L chemotherapy alone (1%) (**Figure 3**)

Figure 2. Oncologists' preference weights for attributes



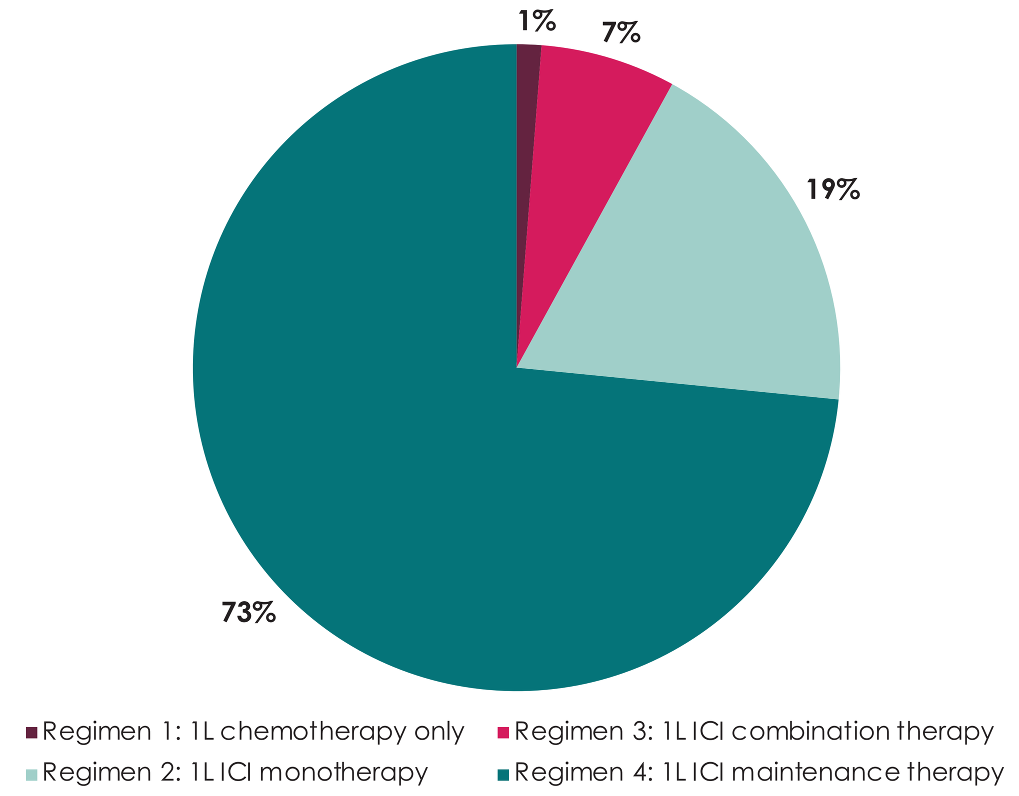
Preference weight
2
1
0
−1
−2
0.47
0.25
−0.27
−0.44
−0.26
−0.11
0.16
0.21
1.78
−0.11
−1.67
r1 r2 r3 r4
Regimen type and AE
Q1W Q2W Q3W Q6W
Frequency
12 16 24
Overall survival (months)

AE, adverse event; **Q1W**, every week; **Q2W**, every 2 weeks; **Q3W**, every 3 weeks; **Q4W**, every 4 weeks; **r1**, 1 medication with moderate AE; **r2**, 1 medication with low AE; **r3**, 2 medications with high AE followed by 1 medication with moderate AE; **r4**, 1 medication with moderate AE for 4 months followed by 1 medication with low AE.

Table 1. Oncologist demographics

Demographic characteristics	N=151
Age, mean ± SD	49.9±10.2
Sex, n (%)	
Male	109 (72.2)
Female	31 (20.5)
Not reported	11 (7.3)
Race, n (%)	
White	85 (56.3)
African American	4 (2.6)
Asian	37 (24.5)
Other	6 (4.0)
Not reported	19 (12.6)

Figure 3. Oncologists' preference for different 1L treatments



1%
7%
19%
73%
Regimen 1: 1L chemotherapy only
Regimen 3: 1L ICI combination therapy
Regimen 2: 1L ICI monotherapy
Regimen 4: 1L ICI maintenance therapy

1L, first-line; **ICI**, immune checkpoint inhibitor.

Table 2. Practice-related characteristics

Practice-related characteristic	N=151
Primary specialty, n (%)	
Internal medicine	3 (2.0)
Oncology	147 (97.4)
Radiology	1 (0.7)
Practice location, n (%)	
Solo practice	14 (9.3)
Partnership/group practice	35 (23.2)
Government, university, or comprehensive cancer center	41 (27.2)
Specialty group practice	43 (28.5)
Hospital-based practice	16 (10.6)
100-499 beds	12 (7.9)
≥500 beds	4 (2.6)
Not reported	2 (1.3)
Years in practice, n (%)	
0-10	28 (18.5)
11-20	80 (53.0)
>20	41 (27.2)
Not reported	2 (1.3)

Limitations

- This study used a convenience sample; therefore, study findings cannot be generalized to all US oncologists
- This study tested a limited number of treatment attributes
 - All DCE studies are affected by this limitation, as survey tractability is important, and a balance needs to be achieved in testing the most important attributes and pragmatic length of the survey

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