



Patient Perceptions of Biomarker Testing in Kidney Cancer from the International Kidney Cancer Coalition Global Patient Survey

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BACKGROUND

- A biomarker is any indicator used to detect or assess the severity of disease and in cancer, biomarkers can help to guide treatments
- Currently, no validated biomarker tests exist for detecting or treating kidney cancer
- Recent studies aim to develop new biomarkers for earlier diagnosis, better prognosis, and personalized treatment
 - A meta-analysis found circulating tumor cells are linked to ccRCC and advanced disease, suggesting future diagnostic use ¹
 - Genetic testing can reveal mutations tied to hereditary kidney cancer, aiding family risk assessment ²
- Patient acceptance of biomarkers varies based on familiarity, health literacy, and provider communication
- Since 2018, the IKCC's biennial global patient survey has gathered insights on kidney cancer diagnosis, management, and burden to identify unmet needs and regional differences. Here, we present findings on patient views regarding future biomarker use for treatment selection

METHODS

Survey development

- IKCC conducted a biennial survey of kidney cancer patients, carers, and caregivers
- It was developed by the IKCC steering committee, including patient advocates, medical experts, and the Picker Institute (UK)
- In 2024, countries with 100+ responses in the 2022 survey could add up to five country-specific questions
- The survey was cognitively tested and offered in 16 languages

Survey availability and promotion

- The survey was available online from September 23 to November 15, 2024
- It was hosted on Qualtrics via an open link and distributed by the IKCC and Partner Organizations to kidney cancer patients, those with a kidney growth, and their caregivers
- Promotion occurred through Partner Organizations, healthcare professionals, and IKCC social media, and websites

Respondents

- Before starting the survey, respondents were informed of the survey's purpose, voluntary nature, confidentiality, and intended use of results
- No identifiable data were collected. Aside from required demographics, questions could be skipped
- Routing logic ensured only relevant questions were shown
- Analysis and review
 - After the survey closed, data were analyzed in aggregate and via cross-tabulations and responses not meeting inclusion criteria were removed
 - Data were analyzed for duplicate responses through the open link and Bot Detection

RESULTS

- Between September 23 and November 15, 2024, the survey collected 2,677 responses from 46 countries (2,049 patients; 628 carers/caregivers)
- Overall, 54% were male, and 80% were aged 46–80. Clear cell RCC was the most common diagnosis (62%); 19% were diagnosed at stage 4, and 52% within the past four years (**Table 1**)

Table 1: Global Participant Characteristics

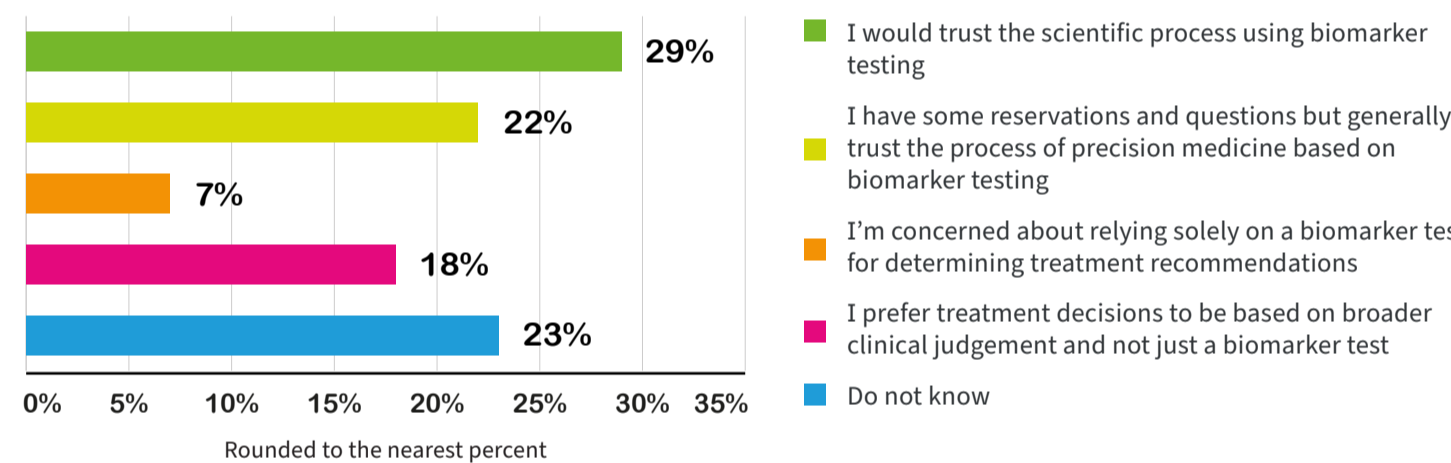
Characteristic		
Gender, % n=2677	Male	54
	Female	45
Age group, % n=2655	<18 years	<1
	18-29 years	2
	30-45 years	13
	46-65 years	54
	66-80 years	26
	>80 years	4
Year of Diagnosis, % n=2655	Prior to 2011	15
	2011-2013	6
	2014-2016	10
	2017-2019	17
	2020-2022	27
	2023-Present	25
Stage at diagnosis, % n=2438	IA	24
	1B or 2	38
	3	19
	4	19
Current stage, % n=2157	No evidence or cured	51
	1 or 2	8
	3	6
	4	36

Characteristic		
Kidney cancer sub-types, % n=2677	Clear cell renal carcinoma	62
	Papillary renal cell carcinoma	6
	Chromophobe renal cell carcinoma	5
	Unclassified renal cell carcinoma	2
	Xp11 translocation type	1
	VHL (Von Hippel-Lindau syndrome)	2
	Renal medullary carcinoma	1
	Collecting duct renal cell carcinoma (Bellini Duct)	<1
	Transitional cell carcinoma (urothelial carcinoma)	1
	Renal sarcoma (NOT renal cell carcinoma with sarcomatoid appearance)	1
	Wilms Tumor	1
	Benign growth	2
	Other	5
I did not receive this information	4	
Don't know / can't remember	6	

- When asked about doctors using future biomarker tests to guide treatment, approx. 50% of respondents expressed trust or general trust in the scientific process, while the other 50% had concerns or were unsure (**Figure 1**)
 - Specifically, 29% trusted the process, 22% had some reservations but generally trusted it
 - 7% were concerned about sole reliance on biomarkers and 18% preferred broader clinical judgment, and 23% did not know

Figure 1: Perspectives on Biomarker Tests to Guide Treatment Choices.

Which of the following statements best fits how you feel about your doctor using the results of biomarker tests to guide your treatment choice? (n=2357)



- Perceptions of biomarker testing varied by country, age, sex, and disease stage
 - Trust in the scientific process ranged from 8% in Japan and 11% in India to 41% in the U.S. and 42% in France. The highest "don't know" rates were in Japan 55%, Turkey 40%, and Korea 32% (**Figure 2**)
 - Respondents aged 80+ were most likely to trust biomarker testing (37%) and most likely to be unsure (29%) (**Figure 3**)
 - Trust was higher among male respondents (32%) than females (26%), while more females expressed concern about sole reliance on biomarkers (10% vs 5%) (**Figure 4**)
 - Stage 4 patients were more likely to trust biomarkers (34%) than those with Stage 1–2 (23%), Stage 3 (24%), or those with no evidence of disease (30%) (**Figure 5**)
 - Tumor sub-type showed little variation

Figure 2: Perspectives on Biomarker Tests to Guide Treatment Choices According to Country.

Which of the following statements best fits how you feel about your doctor using the results of biomarker tests to guide your treatment choice?

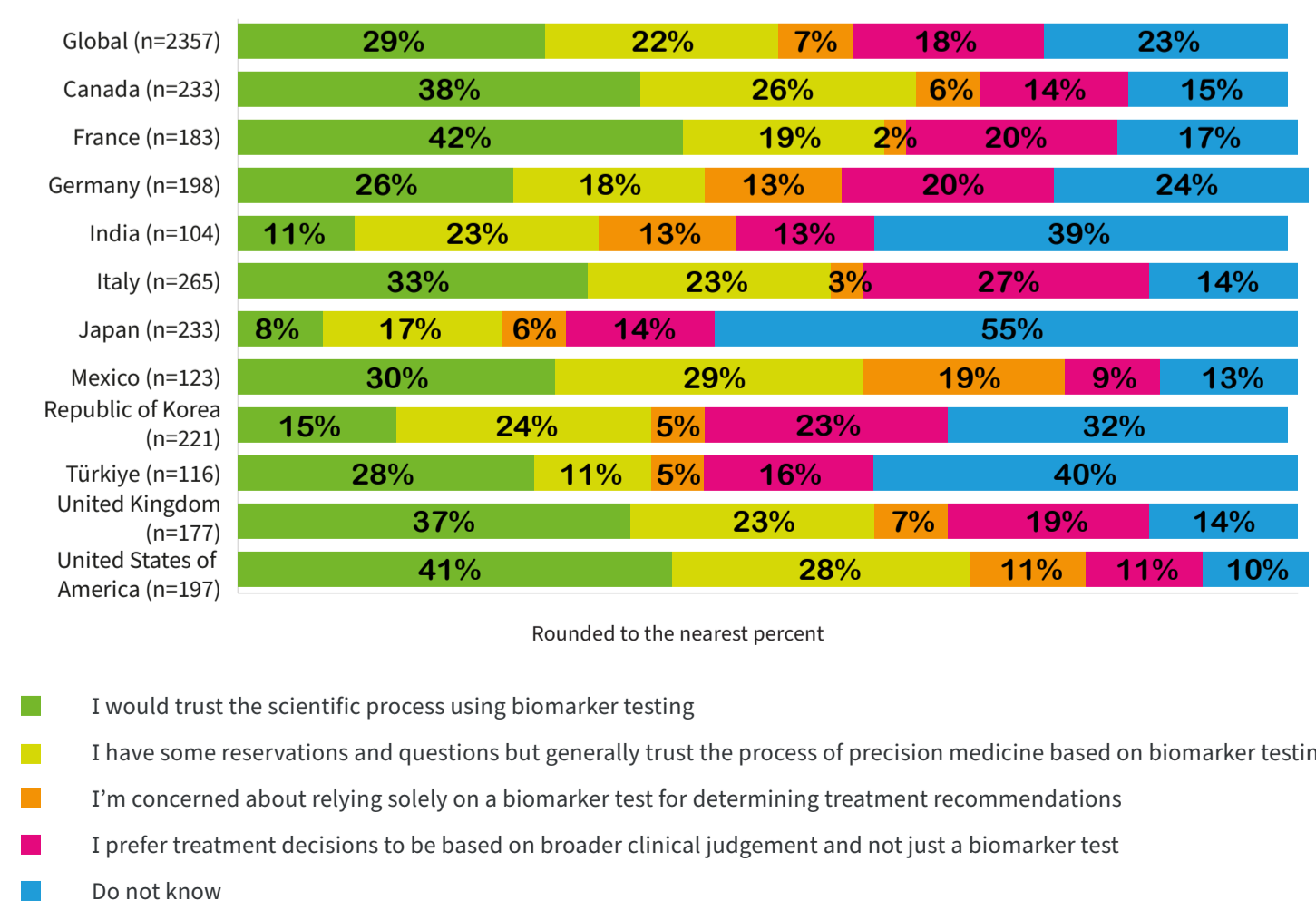


Figure 3: Perspectives on Biomarker Tests to Guide Treatment Choices According to Age.

Which of the following statements best fits how you feel about your doctor using the results of biomarker tests to guide your treatment choice?

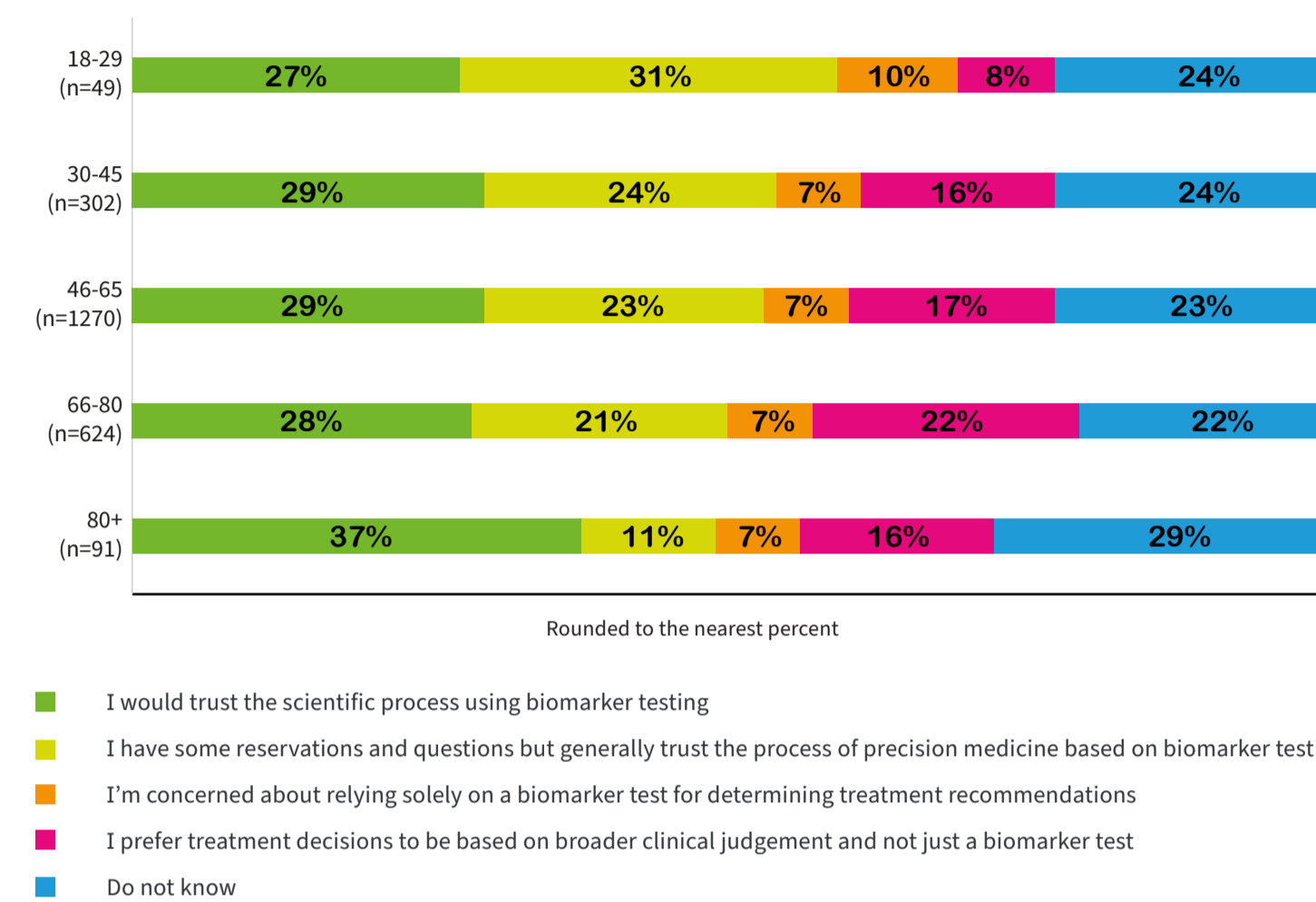


Figure 4: Perspectives on Biomarker Tests to Guide Treatment Choices According to Sex.

Which of the following statements best fits how you feel about your doctor using the results of biomarker tests to guide your treatment choice?

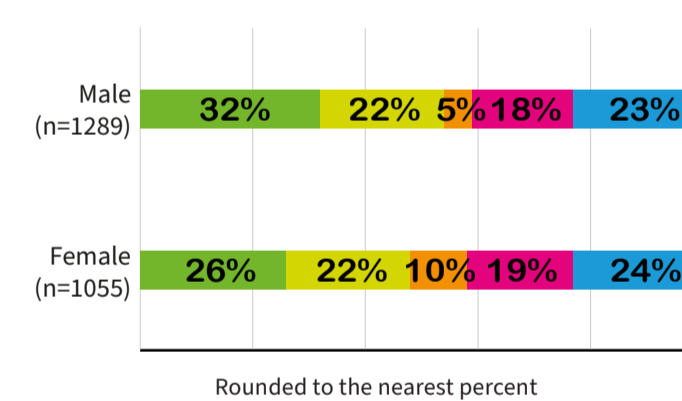
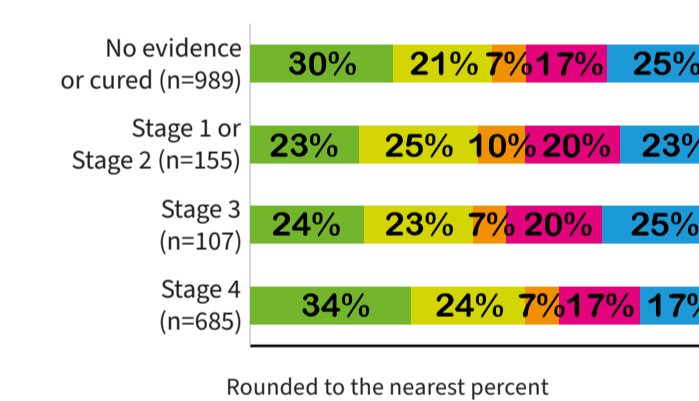


Figure 5: Perspectives on Biomarker Tests to Guide Treatment Choices According to Stage.

Which of the following statements best fits how you feel about your doctor using the results of biomarker tests to guide your treatment choice?



- In the USA, additional questions explored patient interest in personalized treatment, circulating tumor cells, and genomic testing. Among U.S. respondents (n=220):
 - 63% indicated they were not offered a cfDNA test but would have liked to have been, 13% were offered the test and 12% of those took it (**Figure 6**)
 - For genomic testing, 53% were not offered it but wanted it; 27% were offered and took the test (**Figure 7**)

Figure 6: Perspectives on Biomarker Tests in the United States of America (cfDNA).

Were you ever offered a test to look for circulating tumor cells to help make your treatment decision? (also called a cfDNA).

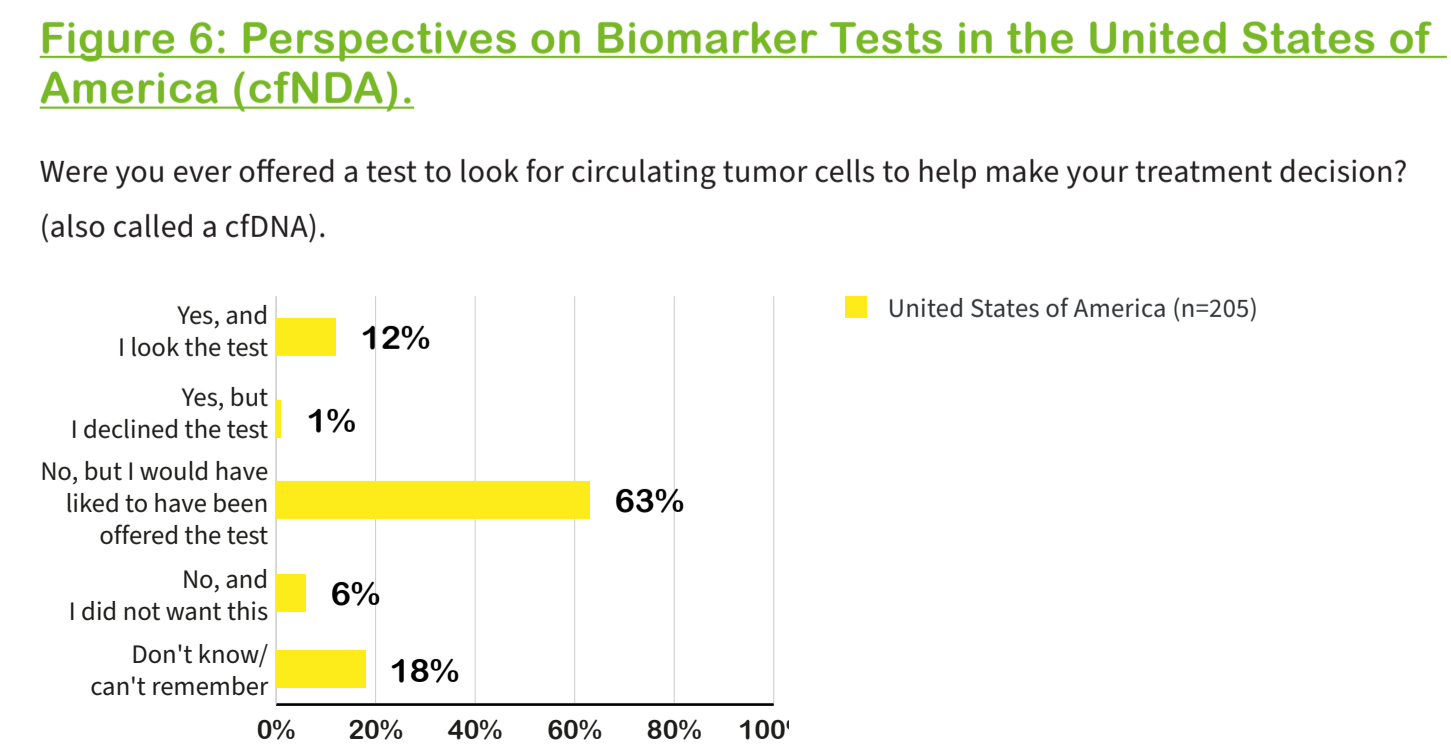
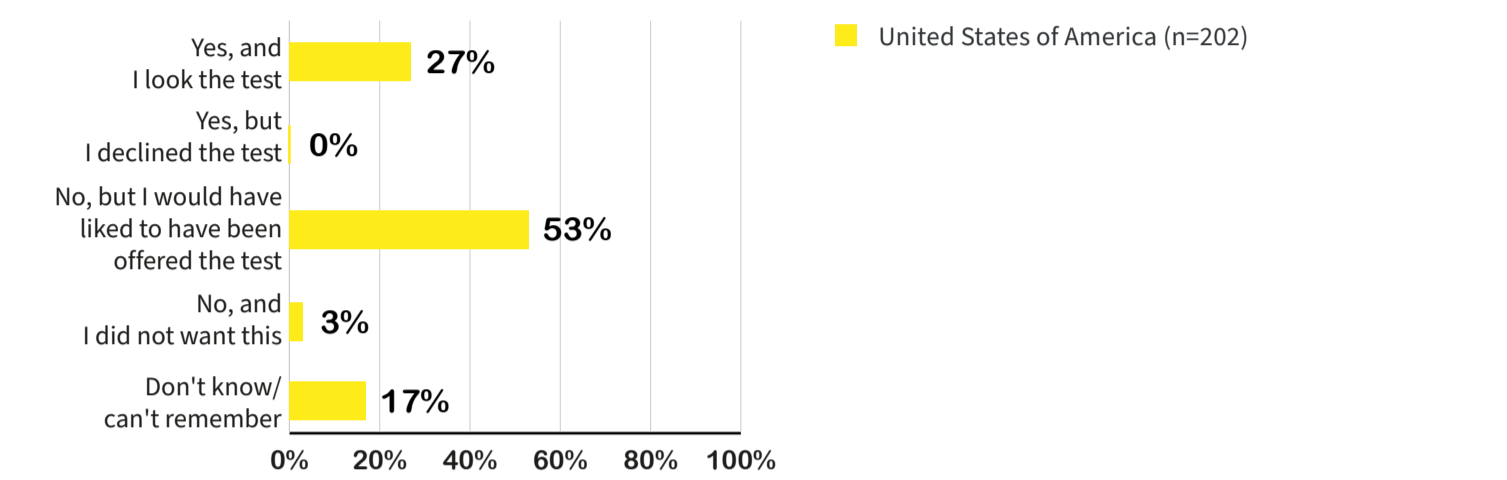


Figure 7: Perspectives on Biomarker Tests in the United States of America (genomic testing).

Were you ever offered a test of the DNA mutations in your tumor tissue (genomic testing) to see if there were any mutations which might indicate treatments appropriate for you?



CONCLUSIONS

- Globally, approx. 50% of respondents were unsure about biomarker tests, preferred broader clinical judgment, or had concerns about relying solely on them. Perceptions varied by country, age, sex, and disease stage
- In the USA, most respondents were open to biomarker tests for circulating tumor cells and/or genomic testing
- Patients need clear, accessible information to make informed decisions through shared decision-making with physicians and caregivers
- Better education is essential to help patients and caregivers feel confident using biomarker results to guide kidney cancer treatment

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DISCLOSURES

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- Michael Jewett served as a scientific consultant for Theralase Therapeutics, Inc.
- Laurence Albiges served as an advisor/consultant or received honoraria from Amgen, Astellas, AstraZeneca, Bristol Myers Squibb, Daiichi Sankyo, Eisai, Ipsen, Janssen, Merck, MSD, Novartis, Pfizer, Roche, Telix, and Xencor, and also received travel expenses from Bristol Myers Squibb, Ipsen, MSD, and Pfizer.
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