

# Geographic and Racial Disparities in Bladder Cancer in the U.S.

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## Key Takeaways

- Racial and geographic variations in bladder cancer care across the United States (US) were evident in this study
- Nationally, Asian or Pacific Islander and Hispanic patients experienced significantly longer times from diagnosis to treatment initiation compared to White patients
- In the West, Hispanic patients experienced significantly longer time to treatment than White patients
- These findings can be leveraged to initiate conversation and foster collaboration with population health decision makers, develop targeted strategies to reduce racial and geographic disparities in bladder cancer care, and improve healthcare quality for all patients

## Conclusions

- Despite ongoing efforts, this study suggests that racial and geographic disparities persist in bladder cancer care across the US, affecting patients' health utilization, specifically, timely access to specialist care and treatment
- Further research is needed to confirm these findings and develop strategies to promote equitable access to care for all patients



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### Disclosures

AM, DE, AK, and LD are Johnson & Johnson employees and own the company stocks and stock options.

## Introduction

- Bladder cancer is the second most common malignancy of the urinary system with an estimated 84,870 new cases and 17,420 deaths projected in the United States (U.S.) in 2025<sup>1</sup>
- Early detection and timely interventions are critical in bladder cancer care, as the 5-year survival rate declines sharply from 97% for in situ disease to 9% for distant-stage disease<sup>2</sup>
- Advancements in diagnosis and treatment have improved bladder cancer survival. However, racial disparities continue to impact bladder cancer care and outcomes<sup>3</sup>

## Objective

- To elucidate variations in bladder cancer care across diverse geographic regions in the U.S. and racial and ethnic groups, also racial disparities in timely access to care

## Results

### Patient Characteristics

- A total of 134,466 patients met the study criteria, including 114,295 (85%) White patients, 7,713 (6%) Black or African American patients, 5,690 (4%) Hispanic patients, 2,723 (2%) Asian or Pacific Islander patients, and 364 (<1%) American Indian or Alaska Native patients
- Patient demographics are summarized in **Table 1**

**Table 1: Demographics of Medicare Beneficiaries Newly Diagnosed With Bladder Cancer Between January 1, 2021, and December 31, 2022**

Demographics	
Patient Number (N)	134,466
Age at Diagnosis, mean (SD), years	77.3 (8.7)
Age Categories, n (%)	
<65	4,874 (3.6)
≥65	129,592 (96.4)
Sex*, n (% of patients with information available)	
Female	36,800 (27.4)
Male	97,662 (72.6)
Race and Ethnicity*, n (%)	
White	114,295 (87.4)
Black or African American	7,713 (5.9)
Asian or Pacific Islander	2,723 (2.1)
Hispanic	5,690 (4.4)
American Indian or Alaska Native	364 (<1)
Geographic Region*, n (%)	
Midwest	29,223 (21.8)
Northeast	29,502 (22.0)
South	48,678 (36.3)
West	26,616 (19.9)

\*% of patients with information available  
SD, standard deviation

### Rate Ratios for Diagnosis, Specialist Visits, and Treatment Interventions

- Compared to White patients, other racial and ethnic groups consistently exhibited lower rate ratios for diagnosis, specialist visits, and interventions, with Hispanic and Black or African American patients experiencing the greatest differences across all outcomes (**Table 2**)

## Methods

- We performed a retrospective, observational, cohort analysis of Medicare fee-for-service data on patients diagnosed with bladder cancer (ICD-10 code C67) between January 1, 2021, and December 31, 2022 (the study period)

## Study Population

- Patients with newly diagnosed bladder cancer who had ≥1 inpatient claim or two or more outpatient claims (separated by at least 30 days) during the patient identification period and had continuous Medicare enrollment for ≥1 year prior to their first claim for bladder cancer

## Outcomes and Analysis

- Eligible patients were stratified by racial and ethnic groups (White, Black or African American, Asian or Pacific Islander, American Indian or Alaska Native, and Hispanic) and assessed descriptively
- Rate ratios were used to evaluate the rates of presumptive/initial diagnosis, specialist visits, and treatment interventions (surgical or pharmacological) in minority racial and ethnic groups compared to White patients
- For patients diagnosed by non-specialists, timely access to specialists (urologists or oncologists) was assessed based by evaluating the duration between the first bladder cancer claim and the first documented specialist visit
- Timely access to treatment was evaluated as the duration between the first bladder cancer claim to the first documented bladder cancer treatment

**Table 2: Rate Ratios of Bladder Cancer Diagnosis and Care**

Race and Ethnicity	Diagnosis	Specialist Visit	Intervention*	Surgical Intervention	Pharmacological Intervention
White (Reference)	Reference	Reference	Reference	Reference	Reference
Black or African American	0.5	0.9	0.9	0.9	0.8
Hispanic	0.4	0.9	0.8	0.8	0.8
Asian or Pacific Islander	0.5	1.0	0.9	0.9	0.9
American Indian or Alaska Native	0.5	1.0	1.0	1.0	0.8
Other	0.7	1.0	1.0	1.0	0.7
Unknown	0.9	1.1	1.0	1.0	1.0

\*Surgical or pharmacological

### Time From Diagnosis to Specialist Visits

- The mean time from diagnosis to the first specialist visit varied considerably within each group, with Black patients having the longest mean time (89 days [SD, 162]; **Table 3**)

**Table 3: Time From Presumptive/Initial Diagnosis to the First Specialist Visit and Treatment Initiation**

Race and Ethnicity	Mean (SD), days	95% Confidence Interval
<b>Time from diagnosis to the first specialist visit</b>		
White	85 (148)	82, 88
Black or African American	89 (162)	78, 100
Hispanic	77 (128)	67, 87
Asian or Pacific Islander	87 (155)	71, 104
American Indian or Alaska Native	81 (127)	41, 121
<b>Time from diagnosis to treatment initiation</b>		
White	27 (90)	26, 28
Black or African American	29 (91)	26, 32
Asian or Pacific Islander	35 (102)	30, 40
Hispanic	33 (94)	29, 36
American Indian or Alaska Native	27 (80)	16, 38

### Time From Diagnosis to Treatment Initiation

- The mean time from presumptive/initial diagnosis to treatment initiation was significantly longer for Asian or Pacific Islander patients (35 days [SD, 102]) and Hispanic patients (33 days [SD, 94]) compared to White patients (27 days [SD, 90]) (**Table 3**)
- Hispanic patients in the West experienced significantly longer mean time from diagnosis to treatment than White patients (**Table 4** and **Table 5**)

**Table 4: Variations in Mean Times From Diagnosis to Treatment Across Geographic Regions**

Region	Time to treatment							
	White		Black		Asian		Hispanic	
	Mean (SD)	95% CI	Mean (SD)	95% CI	Mean (SD)	95% CI	Mean (SD)	95% CI
Midwest	24 (86)	23-25	20 (64)	15-25	23 (80)	9-37	22 (76)	12-32
North-east	31 (96)	29-33	36 (104)	28-44	37 (111)	25-49	36 (106)	27-45
South	26 (88)	25-27	28 (90)	24-32	27 (84)	18-36	26 (82)	21-31
West	29 (103)	27-31	40 (106)	30-50	38 (107)	31-45	41 (102)	35-47

**Table 5: Heatmaps Showing Geographic Variation in Outcomes by Race**

	Asian	Black	Hispanic
Rate ratio for diagnosis			
Rate ratio for specialist visits			
Rate ratio for pharmacological intervention			
Rate ratio for surgical intervention			
Mean time to specialist visits			
Mean time to treatment initiation			

## References

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