Healthy People 2030 defines health disparities as “a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage.” Bladder cancer is the sixth most common cancer in the United States and is primarily a disease of White males over the age of 55. However, disparities in evaluation, management, and mortality persist in patient populations where bladder cancer is less common. It is critical for multidisciplinary care teams to be aware of these disparities in order to effectively reach underserved patient populations.

This article explores disparities in bladder cancer, including data collected through a 2021 Bladder Cancer Economic Study by the Association of Community Cancer Centers (ACCC). It offers practical and operational tips for oncology care team members to manage underserved patients with bladder cancer.

Delays in Diagnosis
Blood in the urine, or hematuria, is often the first sign of bladder cancer and timely referral for urologic evaluation is considered a quality benchmark in bladder cancer management. Compared with males and White patients, females and Black patients are less likely to receive timely diagnostic evaluation of hematuria (Figure 1, page 3).

Recent ACCC analysis of Medicare claims data between 2016-2019 involving patients diagnosed with bladder cancer in 2018 (n=4,356) shows a longer time to diagnosis in early-stage bladder cancer for Black, Asian, Hispanic, and Native American patients compared to White patients (Figure 2, page 3).

Stage at diagnosis is a critical determinant of outcomes in bladder cancer and an important measure of outcome disparities. Being female, Black, Hispanic, of low socio-economic status, or poorly educated are all associated with an increased odds of being diagnosed with advanced disease at presentation. Black patients have up to 10 percent worse disease-specific survival than White patients, and are more likely than White patients to die from bladder cancer within three years of diagnosis. Compared with men, women have a greater risk of recurrence and worse overall survival.

The COVID-19 pandemic reduced the number of patients presenting for symptoms suspicious for bladder cancer (e.g., hematuria), as well as for routine care. At the same time, clinicians are seeing patients from a wider geographic area, especially in relation to complications. These trends are likely to further exacerbate disparities in bladder cancer.

Treatment and Outcome Disparities
Disparities also persist in time to treatment and receipt of appropriate treatment. ACCC claims data research showed a longer time to initial treatment for Asian, Hispanic, North American Native, and Black versus White patients in both early- and late-stage bladder cancer (Figure 3, page 4).

Disparities also exist during treatment. Analysis of treatment patterns reveals:
- Women receive fewer cystoscopies than men in many parts of the U.S. and are less likely to undergo definitive curative radical cystectomy than men.
• Black patients have 21 percent lower odds of receiving guideline-based treatment compared with White or Hispanic patients.\textsuperscript{13}
• Women, Black patients, or patients who live in regions with lower income and education levels are less likely than White patients to receive any treatment or receive treatment within 12 weeks of diagnosis.\textsuperscript{12}
• Patients living in rural areas and with lower socio-economic status are less likely to receive neoadjuvant chemotherapy and more likely to experience delays in surgery.\textsuperscript{14}

Most deaths from bladder cancer occur within the first two to four years from diagnosis, making this a critical window for treatment.\textsuperscript{7} The 5-year relative survival rate for bladder cancer is 77 percent overall, compared to 64 percent for Black patients.\textsuperscript{13} Women have a lower survival rate than men after radical cystectomy.\textsuperscript{16}

10 Tips to Mitigate Disparities in Bladder Cancer

Multidisciplinary and shared care management of patients with bladder cancer has emerged as a care model associated with quality improvement in oncology care.\textsuperscript{26} This involves care coordination between oncology and urology practices to support timely referral, specialist evaluation, and survivorship care planning.

The following strategies can help improve outcomes for underserved patient populations and elevate equity in cancer care delivery:

1. Consider bladder cancer as a potential diagnosis in Black and female patients with hematuria who are referred to oncology via primary care, OB/GYN, and emergency rooms.
2. Promptly refer patients with hematuria to urology for timely full urologic evaluation.
3. Screen patients for financial distress at diagnosis. Refer to the ACCC Financial Advocacy Playbook for guidance.\textsuperscript{27}
4. Refer patients to financial advocates or navigators before treatment initiation and at treatment milestones to identify appropriate financial navigation interventions. The ACCC Patient Assistance & Reimbursement Guide can streamline this process.\textsuperscript{28}
5. Practice culturally competent/health literacy communication and shared decision-making to keep patients engaged in their care. Ask Me 3\textsuperscript{25} is a great place to start.
6. Consider exploring disparities in bladder cancer in your organization via an NCI Community Oncology Research Program (NCORP), community-based participatory research study via the NCI Center to Reduce Cancer Health Disparities (CRCHD), or quality improvement project.
7. Build relationships that support access to care and reduce delays in referral through community outreach with primary care, OB/GYN, and urology providers.
8. Consider concurrent consultation with urology and medical and radiation oncology, as well as shared decision-making between patients and other members of the care team, including oncology nurses, wound ostomy and continence nurses, and oncology social workers.\textsuperscript{30}
9. Provide information and education to patients with cancer at the time of diagnosis about different types of treatment by type and stage of bladder cancer, options for clinical trial participation, and the roles and responsibilities of providers at different points in treatment.
10. Guide patients toward advocacy organizations, like the Bladder Cancer Advocacy Network, and resources on bladder cancer.

The Financial Toll of Disparities on Patients

There are substantial all-cause healthcare and out-of-pocket costs involved in delaying diagnosis and treatment of bladder cancer. The later the diagnosis, the higher the cost to patients in terms of both financial toxicity and distress. Heather Honoré Goltz, PhD, LCSW, MEd, an oncology social worker, researcher, and health education specialist at the University of Houston-Downtown, emphasizes that patients with bladder cancer without insurance are especially likely to be distressed and anxious about practical concerns, such as the cost of treatment, transportation issues, time off from work, and an available support system for advanced treatment. She observes that when clinicians are mapping the patient’s most pressing concerns:

Oftentimes it’s not the symptomology that is the most disturbing thing to them. It really is, “Am I going to bankrupt my family? Am I going to be able to live and pay my bills? Am I going to be able to keep a roof over my head?”

Heather Honoré Goltz, PhD, LCSW, MEd

Factors Contributing to Disparities in Bladder Cancer

A cluster of factors contribute to disparities in diagnosis, treatment, and outcomes for underserved populations (Figure 2). According to studies in bladder and other types of cancer, type of insurance, the type of hospital providing care,\textsuperscript{16} provider density, and travel burden to a center of excellence or academic center are associated with a decreased likelihood of receiving critical treatment,\textsuperscript{18} regardless of insurance status. Access to care is a key factor in racial disparities in bladder cancer (Figure 4, page 5).
FIGURE 1. Disparities in Time to Diagnosis

Women may wait two to four weeks longer than men to receive a complete hematuria evaluation.3

Women are less likely to be referred to a urologist or receive complete evaluation for hematuria.4

Black patients are less likely to receive timely diagnostic evaluation of hematuria.5

Black women are diagnosed at later stages than either White women or Black men.6

FIGURE 2. Average Time from Hematuria Diagnosis to Bladder Cancer Diagnosis (30-Day Months) by Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Late Stage</th>
<th>Early Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Races/Ethnicities</td>
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<td>5.6</td>
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<tr>
<td>Other</td>
<td>2.2</td>
<td>7.6</td>
</tr>
<tr>
<td>Asian, Hispanic, and North American Native*</td>
<td>4.6</td>
<td>7.3</td>
</tr>
<tr>
<td>Black</td>
<td>4.6</td>
<td>6.5</td>
</tr>
<tr>
<td>White</td>
<td>4.4</td>
<td>5.4</td>
</tr>
</tbody>
</table>

*Asian, Hispanic, and North American Native are combined to meet sample size and data use requirements. Source: ACCC 2021 Bladder Cancer Economic Study

Longest time to diagnosis observed for Asian, Hispanic, and North American Native patients
Shortest time to diagnosis observed for White patients
Figure 3. Average Days from Bladder Cancer Diagnosis to Initial Treatment

<table>
<thead>
<tr>
<th>All Races/Ethnicities</th>
<th>Late Stage: 35.7</th>
<th>Early Stage: 51.1</th>
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</thead>
<tbody>
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<td>Early Stage: 0.0</td>
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<tr>
<td>Other</td>
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<td>Early Stage: 55.8</td>
</tr>
<tr>
<td>Asian, Hispanic, and North American Native*</td>
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<td>Early Stage: 50.2</td>
</tr>
<tr>
<td>Black</td>
<td>Late Stage: 41.5</td>
<td>Early Stage: 54.0</td>
</tr>
<tr>
<td>White</td>
<td>Late Stage: 35.3</td>
<td>Early Stage: 50.9</td>
</tr>
</tbody>
</table>

Includes patients with treatment within 90 days of diagnosis. *Patient counts less than 11 have been redacted per CMS data use requirements. **Asian, Hispanic, and North American Native are combined to meet sample size and CMS data use requirements. Source: ACCC 2021 Bladder Cancer Economic Study

References
FIGURE 4. Factors Contributing to Disparities in Bladder Cancer Care

| Type of Insurance | • Compared with patients with bladder cancer who use private insurance, uninsured and Medicaid-insured patients are more likely to experience delays in treatment longer than 90 days and lower odds of treatment at a high-volume facility.19 |
| Type of Hospital Providing Care | • Non-White patients are more likely to be treated at community hospitals than tertiary cancer centers, where there are sometimes resource gaps, such as shortages in the availability of Bacillus Calmette-Guerin, are less likely to receive guideline-recommended treatment.20 |
| Travel Burden | • Centers of excellence are concentrated in urban areas, limiting access for patients living in suburban and rural areas.24 • Median travel distance has increased from 11.8 to 20.3 miles for surgical care and 6.5 to 8.3 miles for nonsurgical care.24 |
| Provider Density | • The regionalization of care since the early 2000s has affected access to timely treatment.22 • Many states experience shortages in the number of practicing urologists.23 • Over 2,000 counties in the U.S. are without a urologist. |
| Attitudes & Beliefs | • Primary care and OB/GYN providers often attribute hematuria to urinary tract infection in women and treat with antibiotics without undergoing further work-up.25 • Many women see urologists as “doctors for men” and prefer to see primary care providers or gynecologists for hematuria.25 • Implicit bias likely plays a critical role in structuring disparities in receipt of guideline-recommended care. • Healthcare within equal-access systems does not eliminate disparities in stage at diagnosis by race/ethnicity or gender.21 |


