Improving Knowledge of Surveillance Practices in Non-muscle Invasive Bladder Cancer



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QUALITY OR SAFETY PROBLEM

Surveillance practices for Non-muscle Invasive Bladder Cancer (NMIBC) are based on risk of disease recurrence and progression. This requires providers to know and understand which types of bladder tumors fall into specific risk categories (i.e. low, intermediate, and high) and what the American Urological Association (AUA) recommends for surveillance for each risk group. This information can often be daunting and confusing for providers, especially trainees. Adherence to guideline-recommended surveillance practices was identified as an area for improvement in our department. For example, some providers were performing annual surveillance cystoscopy on all patients regardless of risk classification.

BACKGROUND

Adherence to risk-aligned surveillance practices in NMIBC is also known to be a national problem. Multiple research studies have shown that significant variation exists how surveillance is performed for patients with NMIBC. Such variation can result in over-utilization of surveillance practices in patients with low-risk disease and potentially under-utilization in patients with high-risk disease. Ideally, patients should undergo recommended surveillance in alignment with their disease risk stratification as recommended in multiple national and international guidelines. However, recent qualitative work by our team has identified a substantial knowledge gap among providers.

PROJECT OBJECTIVES

The objective of this project was to improve provider and resident knowledge regarding guideline-recommended risk-aligned surveillance practices for NMIBC.

INTERVENTION

Our goal was to educate and continually remind providers and residents about guideline-recommend riskaligned surveillance practices for NMIBC. To address this need we created multiple large conference-sized posters that visually displayed three key pieces of information 1) AUA risk-stratification for NMIBC, 2) risk of recurrence and progression for each type of tumor, and 3) the recommend surveillance strategy for each risk group (see below).

These posters were displayed in each of our clinic cystoscopy rooms as well as our provider workroom at DHMC. The posters were strategically placed within the line-of-sight of both patients and providers to serve as a reminder to review guideline-recommended surveillance practices and generate discussion between patients and providers. These posters were also shared with and displayed at our other residency training sites, including the VA Medical Center in White River Junction, VT and Concord Hospital in Concord, NH. There was no resistance to hanging these posters at any facility. Funds for poster printing were supported by the Section of Urology at DHMC.

Providers (MDs, APRNs, and Residents) received a pre-poster 8 question survey assessing their baseline surveillance practices for NMIBC. They then completed the same survey 6 months after the posters were placed on display.

Timeline: 6 months

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Non-Muscle Invasive Bladder Cancer Risk Stratification

Low Risk LG Ta ≤ 3 cm PUNLMP

Intermediate Risk Recurrence within 1 year, LG Ta Solitary LG Ta > 3cm LG Ta, Multifocal HG Ta ≤ 3 cm LG T1

High Risk HG T1 Any recurrent, HG Ta HG Ta, > 3cm or multifocal Any CIS Any BCG failure in HG patient Any variant histology Any LVI Any HG prostatic urethral involvement

Risk of Recurrence = Less than 30% Risk of Progression = Up to 5%

Risk of Recurrence = Up to 80% Risk of Progression = Up to 50%

Surveillance	
Y1	At 3m, then 6-9m later
Y2	Yearly
Y3	Yearly
Y4	Yearly
Y5	Yearly
>Y5	Shared-Decision Making

Surveillance	
Y1	At 3 m, 6 m, 12 m + cytology
Y2	q 6 m + cytology
Y3	Yearly + cytology
Y4	Yearly + cytology
Y5	Yearly + cytology
>Y5	Shared-Decision Making

Surveillance		
Y1	q 3 m + cytology	
Y2	q 3 m + cytology	
Y3	q 6 m + cytology	
Y4	q 6 m + cytology	
Y5	Yearly + cytology	
>Y5	Yearly + cytology	

Upper Tract Imaging = Q 1-2 years

MEASURES OF SUCCESS

We measured our success based on responses to an 8 question survey distributed to providers before and after poster implementation. We also solicited informal provider feedback.

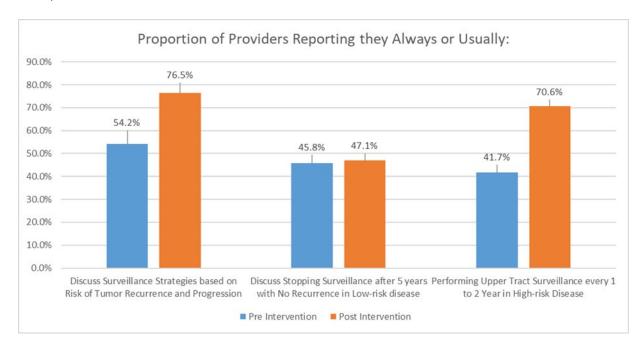
Survey Questions

- I am a... (attending, resident, or advanced practice provider)
- What percentage of your practice is comprised of urologic oncology?
- For a patient with NMIBC, how often do you discuss what risk group (low, intermediate, high) they belong to based on their surgical pathology?
- For a patient with NMIBC,
 - o How often do you discuss their individual risk of bladder tumor recurrence?
 - o How often do you discuss their individual risk of bladder tumor progression?
 - How often do you discuss surveillance strategies based on their risk of bladder tumor recurrence and progression?
- For a patient with low-risk NMIBC, how often do you discuss stopping surveillance after 5 years with no recurrence?
- For a patient with intermediate or high-risk NMIBC, how often do you perform upper tract surveillance according to AUA guidelines (q1-2 years)?

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OUTCOMES

After poster implementation, we observed an 22.4% increase in the proportion of providers reporting that they "always" or "usually" discussed surveillance strategies with patients based on their individual risk of bladder tumor recurrence and progression (see below). We also observed a 28.9% increase in the proportion of providers who reported performing upper tract surveillance every 1 to 2 years in patients with high-risk NMIBC. No difference was observed in the proportion of providers discussing stopping surveillance after 5 years among patients with low-risk disease and no evidence of recurrence. Overall, multiple providers informally reported that they found the posters to be helpful and that it stimulated discussion with patients.



POTENTIAL IMPACT AND SCALABILITY

Poster implementation generated increased discussion between patients and providers regarding guideline-recommended surveillance practices for NMIBC. This intervention can easily be implemented in any urology clinic across the nation. This poster could also be adapted into a hand-out for patients and families to review prior to and after their office cystoscopies.

SUSTAINING THE CHANGES

We plan to sustain change by updating the posters every few years with a different color scheme and periodically performing "spot" patient chart reviews to determine provider adherence to guideline-recommendations. Providers will be reminded about the importance of guideline adherence via e-mail annually.

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ADDITIONAL RESOURCES

The Bladder Cancer Advocacy Network (BCAN) website holds a wealth of resources and information that can be used to inform similar projects for NMIBC patients.

KEY SUMMARY

- a. Displaying AUA-guideline recommendations for NMIBC surveillance in the office stimulates discussion between patients and providers
- b. 22% increase in routinely discussing surveillance strategies with NMIBC patients
- c. 29% increase in performing upper tract surveillance for high-risk NMIBC

PROJECT LEAD CONTACT INFORMATION

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