National assessment of Non-Muscle Invasive Bladder Cancer (NMIBC) practice patterns: Immediate post-operative instillation of chemotherapy (IPOIC)

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Background

- Sylvester et al. (2005) Meta-analysis of 7 randomized trials (n=1,476) TUR vs. TUR plus one immediate postoperative instillation of intravesical chemotherapy.
 Results: 12.5% reduction in two-year recurrence when IPOIC is administered within 24 hours of TURBT.
- The AUA Guidelines for NMIBC state "a single, postoperative instillation of a chemotherapeutic agent may decrease recurrence risk in patients with superficial disease who have undergone uncomplicated resection of the tumor(s)."

Study Objective

- Assess practice patterns for use of intravesical postoperative chemotherapy among U.S.-based urologists treating patients with NMIBC
- Compare these results with adherence to published AUA guidelines

Methods

A geographically balanced sample of urologists was obtained by a scientific market research firm.

259 Urologists



96% Board Certified

18 Years Mean Post Residency

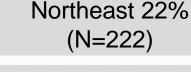
30% Fellowship
Trained

16% Urological Oncologist Training

Reviewed records of last 4 NMIBC patients who had completed initial treatment plan and completed a case report form for specific demographic, pathological and treatment information.



1,010 NMIBC Patient Records



South 37% (N=373)

Midwest 20% (N=204)

West 21% (N=211)

Selection Criteria

- Histological confirmed diagnosis of NMIBCtransitional cell carcinoma
- 2. Patient completed initial treatment plan with observation ongoing
- Patient may have been a candidate for or received intravesical therapy
- 4. Patient must not have ongoing initial intravesical induction therapy

Statistical Analysis

- Categorical and nominal data analyzed using Chisquare tests of independence and z-tests for column proportions, with a statistical significance level of 0.05.
- Tests were adjusted for all pair-wise comparisons within a row of each innermost sub-table using Bonferroni correction

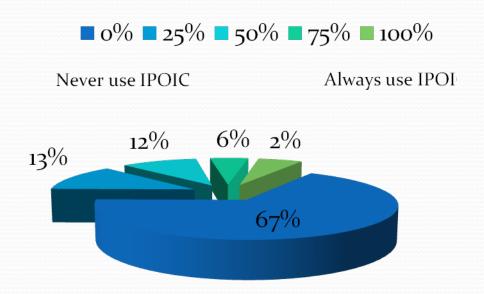
Results

Of the 1,010 patients with NMIBC who met selection criteria above:

- 60% received instillation therapy during the initial round of treatment and 28% of these patients (17% of all patients) received IPOIC
- "Primary, low risk" patients most often received IPOIC
- 90% of the time, patients received immediate instillation within 12 hours of surgery

Results

At initial diagnosis, 67% of urologist never used IPOIC



Note:

- At initial diagnosis, 67% of urologists never used IPOIC
- At initial diagnosis, only 2% used IPOIC 100% of the time.
- Wide variation in the utilization of IPOIC has reported

Proportion of NMIBC receiving Immediate post-op installation Chemotherapy

Received Immediate Instillation?	Primary, low risk (A)	Primary, intermediate risk (B)	Primary, high risk (C)	Recurrent, low risk (D)	Recurrent, intermediate risk (E)	Recurrent, high risk (F)	Total Instillations
	N=108	N=112	N=157	N=80	N=73	N=72	602
Yes	58.3%	28.1%	21.6%	22.8%	20.7%	13.1%	28%
	BCDEF*						
No	41.7%	71.9%	78.4%	77.2%	79.3%	86.9%	72%
	P<0.05	P<0.05	P<0.05	P<0.05	P<0.05	P<0.05	

[•]For each significant pair, the letter of the category with the smaller proportion appears under the category with the larger proportion.

[•]Categories BCDEF* had significantly more patients not receiving IPOIC

Conclusion

- Wide variation in adherence to the AUA IPOIC guideline exists in the US
- 2. Reasons for the great diversity in guideline adherence is speculative and may include:
 - Physician bias, progression and recurrence risk, local pharmacy and hospital practice factors all likely contribute.
- 3. Further study is needed to determine rationale behind current practice patterns and methods to improve education and dissemination of guidelines...