ELSEVIER

# MANAGEMENT OF STAGE T1 TUMORS OF THE BLADDER: INTERNATIONAL CONSENSUS PANEL

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**ABSTRACT**

The International Consensus Panel on T1 bladder tumors markers reviewed the subject from a clinical perspective. From diagnosis to treatment decisions, what are the important issues in the management of a new patient? The assessment of prognostic factors for progression requires optimal resection and documentation. The role of immediate adjuvant intravesical chemotherapy after resection remains controversial. How often should the upper tract be assessed for tumor recurrence? The decision on whether to attempt bladder conservation with intravesical therapy or to perform a cystectomy is the most difficult issue in the management of superficial bladder cancer today. Finally, what therapies exist if initial intravesical bacille Calmette-Guérin fails to eradicate the disease or prevent recurrence? The panel thoroughly explored all these subjects and has made recommendations with supporting evidence. UROLOGY **66** (Suppl 6A): 108–125, 2005. © 2005 Elsevier Inc.

Most superficial stage T1 urothelial bladder cancers are high grade and appear to grow rapidly with the potential not only to recur but also to progress to invasion, metastases, and death. In this article, we focus on the elements of treatment success that we define as disease-free survival with a high quality of life, including bladder sparing where possible.

Figure 1 is an algorithm for the management of stage T1 urothelial tumors presenting as new or recurrent tumors after previous management of lower-stage tumors. Virtually all T1 urothelial tumors are high-grade lesions histologically and present a serious risk of progression in stage by invasion or metastases. Timely and aggressive management of these tumors is essential to minimize the risk for the patient. Urologists, in particular, are in a position to make a significant impact on the overall outcome of patients in this category.

The following sections describe the sequential steps in the assessment, decision-making, and treatment of patients with T1 tumors. Urologists, pathologists, and radiologists must work together to not only diagnose new or recurrent tumors but also to accurately assess individual risk of progression and to stratify patients for treatment. It is important for the technique of transurethral resection of bladder tumors (TURBT) to be complete and to safely provide sufficient tissue for staging and grading. Random and directed biopsies are frequently indicated. Immediate adjuvant chemotherapy should be used more frequently. In our opinion, repeat TURBT is mandatory if the surgeon cannot guarantee that a complete TURBT has been performed or when muscle is not present in the pathologic specimen. Clinically useful prognostic factors have been defined to stratify patients by risk of progression. Substaging of T1 tumors has been described but remains controversial. Extravesical tumor extension can occur, particularly after bacille Calmette-Guérin (BCG) therapy with an initial complete response; thus screening should be performed. The most difficult decision is whether to initiate intravesical therapy or to recommend radical therapy, usually with cystectomy. Initial intra-

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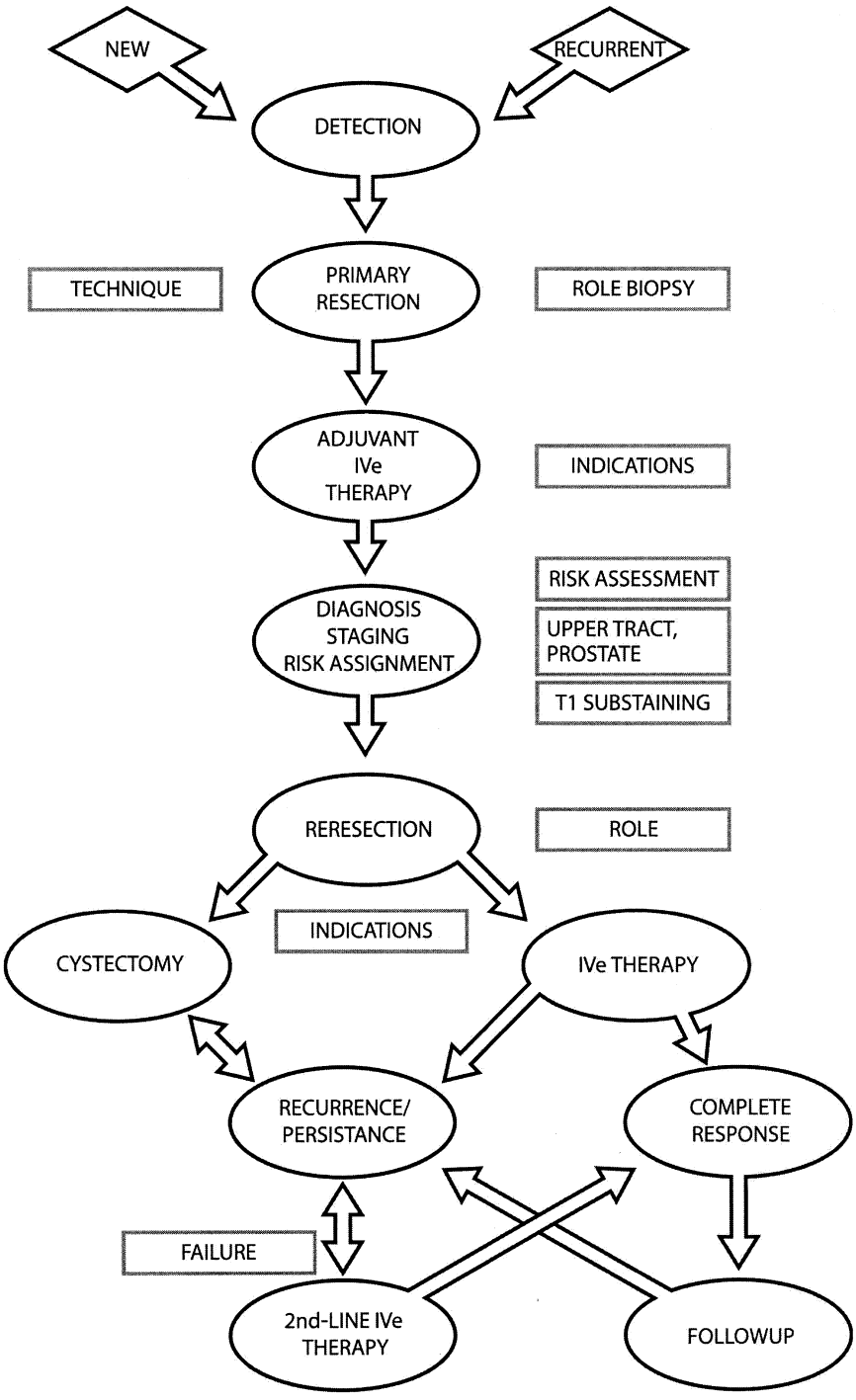


FIGURE 1. *T1 management algorithm: steps (circles) and issues (boxes) in the management of stage T1 urothelial carcinoma of the bladder. IVe = intravesical.*

vesical therapy should be done with BCG. However, careful follow-up is necessary with the intent to recommend cystectomy for persistent or recurrent tumor, although some patients can be managed by salvage intravesical therapy.

## DIAGNOSIS AND STAGING

### *Role of Random and Directed Biopsies*

During the initial endoscopic evaluation, the urologist should make a decision on the need for directed (to an area of visible abnormality), selected-site, or random mucosal biopsies. Biopsy is of particular importance in cases with positive cytology results, especially if no residual tumor is visualized in the bladder.

If selected-site biopsies are performed, the locations are usually lateral to each ureteral orifice (n = 2), lateral walls (n = 2), posterior wall (n = 1), superior wall (n = 1), and prostate (n = 1). Cold-cup biopsies of any erythematous, velvety, or