

# V-BTA<sup>TM</sup> TEST

## A rapid urine test for the detection of bladder tumor analytes in canine urine.

- Highly sensitive for detection of bladder TCC in dogs.
- Very useful when cytology or biopsy is impractical or inconclusive.
- May aid in early detection to improve prognosis and guide further diagnostics.
- Potential utility as a screen for bladder cancer in geriatric and high risk populations.
- Excellent negative predictive value allows for rule out diagnostic information.

The V-BTA Test is a qualitative, rapid, latex agglutination, urine dip stick test which measures a bladder tumor-associated glycoprotein complex that is detectable in the urine of canine patients with Transitional Cell Carcinoma (TCC).

The high sensitivity of the test (and significant negative predictive value) suggest it to be a practical screening test to rule out TCC in geriatric patients or patients with clinical signs related to the lower urinary tract, particularly before pyuria and hematuria develop.<sup>1</sup>

V-BTA is a non-invasive diagnostic test intended for the early detection of tumor associated analytes shed into the urine. Recent veterinary studies have demonstrated that the test is especially useful in early detection of disease with routine monitoring. The studies have demonstrated the following clinical findings:

	%	N
Specificity (Healthy and Urologic Controls)	78	45
Specificity (Healthy Subjects)	95	19
Sensitivity (Active TCC)	90	20
Positive Predictive Value	64	
Negative Predictive Value	95	

Sample Requirement: 0.5 mL untreated urine





# Detection of Canine Transitional Cell Carcinoma Using a Bladder Tumor Antigen Urine Dipstick Test

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**Abstract** - Canine transitional cell carcinoma (TCC) carries a poor prognosis in part due to late disease detection. The measurement of specific tumor markers shed in the urine may aid in sensitive, early disease detection and therefore improved prognosis. A 1-year prospective clinical trial was designed to assess the efficacy, sensitivity and specificity of the first generation Bard BTA test to diagnose TCC in dogs. This test is a qualitative, rapid, latex agglutination, dipstick test run on voided urine, which measures a glycoprotein antigen complex associated with bladder cancer in human patients. Sixty-five dogs were entered in the study: 20 TCC confirmed patients, 19 healthy controls and 26 urologic controls with a variety of conditions including urinary tract infection, crystalluria and proteinuria. Overall test sensitivity was 90% and specificity was 78%. False positive test results were noted in the presence of significant glucosuria (4+), proteinuria (4+), and pyuria or hematuria (>30-40 WBC or RBC per hpf). Urine parameters that had no effect on efficacy included collection method (cystocentesis or free catch), pH, specific gravity, crystalluria, bilirubinuria, bacteriuria and casts. These data indicated that the Bard BTA test was sensitive for the detection of the bladder tumor-associated antigen complex in canine TCC. As evaluated, this test may serve as a useful adjunct to diagnosis, especially when cytology or biopsy is questionable or impractical. Furthermore, because of the high sensitivity of the test, it may be a practical screening test to rule out TCC in geriatric patients or patients with clinical signs related to the lower urinary tract, particularly before pyuria and hematuria develop which may interfere with test results. (Vet Clin Pathol 28:33-38, 1999)

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