UBC® Rapid
For Bladder Cancer detection
Cystoscopy is invasive and may cause pain and discomfort in patients and in cases with low grade tumors or carcinoma in situ (CIS). Urine cytology, a non-invasive urine test, is often used as an adjunct to cystoscopy. However, even if cytology has the advantage of high specificity its sensitivity varies considerably.

To overcome such shortcomings of the existing diagnostic methods for bladder cancer, urine tumor markers are available. One interesting possibility is the measuring of soluble cytokeratin 18 and 18 fragment in urine, since elevated amounts of these cytokeratin fragments are present in the urine of many individuals with bladder cancer, even at early stages of the disease.

**UBC® Rapid** is a powerful diagnostic parameter in primary diagnosis and follow-up of bladder cancer, especially for papillary non-invasive high-grade tumors and carcinoma in situ (CIS).

**UBC® Rapid** performs better than urine cytology in many patients due to improved sensitivity and the combination of **UBC® Rapid** and cytology enables detection of additional tumors as opposed to cytology alone.

One clear advantage is that **UBC® Rapid** can be performed immediately and the result will be available during the patient visit.

**Background**

Bladder cancer is a common cancer in men and women worldwide and transitional cell carcinoma (TCC) comprises up to 90% of all primary bladder tumors. The risk of developing bladder cancer is three to four times higher in men than in women and it increases with smoking, exposure of industrial chemicals and other carcinogens. At presentation more than 70% are non-muscle invasive bladder cancer, but the recurrence rate is high and therefore many patients progress to muscle invasive bladder cancer or metastatic disease. The most common methods for detection of bladder cancer and for the assessment of recurrence are cystoscopy and urine cytology.

**CYTOKERATINS**

In conditions of high cellular turnover, such as cancer, cytokeratins are released from the epithelial cells and can be detected in blood or urine. At present more than 20 different cytokeratins have been identified, of which cytokeratin 8, 18 and 19 are some of the most abundant in simple epithelial cells. The cytokeratin pattern is usually preserved during the transformation of normal cells into malignant cells.

**DIAGNOSTIC**

Cystoscopy is invasive and may cause pain and discomfort in patients and in cases with low grade tumors or carcinoma in situ, a diagnosis is not readily performed. Urine cytology, a non-invasive urine test, is often used as an adjunct to cystoscopy. However, even if cytology has the advantage of high specificity its sensitivity varies considerably. To overcome such shortcomings of the existing diagnostic methods for bladder cancer, urine tumor markers are available. One interesting possibility is the measuring of soluble cytokeratin 18 and 18 fragment in urine, since elevated amounts of these cytokeratin fragments are present in the urine of many individuals with bladder cancer, even at early stages of the disease.
The first clinical evaluation of UBC\textsuperscript{®}Rapid on a POC test platform\textsuperscript{5}. The study showed that quantitative results provide higher reproducibility and enable improved risk stratification compared with simple dichotomized POC test results. The accuracy of the POC test platform is at least equivalent to ELISA in bladder cancer patients. UBC\textsuperscript{®}Rapid detects more patients with bladder cancer than NMP22\textsuperscript{®} or cytology. Combining cytology with UBC\textsuperscript{®}Rapid yielded a sensitivity of 88\% for detection of bladder cancer in high risk patients. UBC\textsuperscript{®}Rapid might be used as an adjunct to cystoscopy and cytology in laboratory independent settings.

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**TIME COUNTS**

- Easy and rapid to perform
- Result within 10 minutes – during the patient visit.

**FAST FACTS UBC® Rapid**

- The only quantitative POC test platform for detection of bladder cancer, now also available as a qualitative test
- Works in haematuria
- UBC® also available as ELISA/IRMA

**References:**


Provides knowledge to decision.

**Oncology**

- TPS®
- UBC®
- MonoTotal®

**Bacteriology**

- TUBEX®
- TF

IDL Biotech is certified: EN ISO 13485:2016