

Non-invasive test can detect urothelial cancer

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(HealthDay)—UroSEEK, which uses DNA recovered from cells shed into urine, can detect urothelial cancer, according to a study published online March 20 in *eLife*.

Simeon U. Springer, from the Ludwig Center for Cancer Genetics and Therapeutics in Baltimore, and colleagues developed a test to detect urothelial neoplasms that incorporates massive parallel sequencing assays for mutations in 11 genes and copy number changes on 39 [chromosome arms](#). UroSEEK was used in 570 patients at risk for [bladder cancer](#) (BC) and 56 with upper tract [urothelial cancer](#).

The researchers found that UroSEEK was positive in 83 percent of those who developed BC. Combined with cytology, it detected 95 percent of patients who developed BC. Seventy-five percent of patients with upper tract urothelial cancer tested positive by UroSEEK, including 79 percent of those with non-invasive tumors. In 68 percent of urines obtained from BC patients under surveillance who demonstrated clinical evidence of recurrence, UroSEEK detected genetic abnormalities. In low-grade BCs, UroSEEK detected 67 percent of cases, while none were detected by cytology.

"These results establish the foundation for a new non-invasive approach for detection of urothelial cancer," the authors write.

Several authors disclosed financial ties to Personal Genome Diagnostics, PapGene, and Sysmex-Inostics.

More information: [Abstract/Full Text](#)

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