New Test Measures Prostate Cancer Metastasis Risk

The benefits? Risk is assessed more rapidly and at a cheaper cost.

January 4, 2019 By Alicia Green

For men with prostate cancer, a new test may be able to more quickly assess their risk of developing metastatic tumors, according to new findings published in The Journal of Molecular Diagnostics. What's more, the test is cheaper, reports Medical News Today.

Developed by researchers at the Albert Einstein College of Medicine in New York City in collaboration with other scientists, the new test detects copy number alterations (CNAs). CNAs are changes in a person's genome (complete set of genes) that can influence the spread of cancerous tumors. Assessing CNAs in samples of blood or prostate tissue helps specialists determine whether cancer cells are multiplying.

According to scientists, the Next-Generation Copy Number Alteration (NG-CNA) assay, or analysis, is able to examine 902 genomic sites across 194 genomic regions. But what sets this test apart from previous ones is its rapid detection and lower cost.

Genome sequencing generally costs about $1,000, notes lead study author Harry Ostrer, MD, of the Albert Einstein College of Medicine. However, the DNA extraction, library preparation and sequencing reagents through NG-CNA could cost only about $20 to $40 per sample, says Ostrer.

The results through NG-CNA are also easier to read (which allows researchers to process thousands of tissue samples in one go) and are ready faster, with a turnaround of approximately 36 hours.

"The impact of this information is twofold: to assure aggressive therapy at the time of diagnosis for men with metastasis-prone disease and provide a rationale for active surveillance (and not overtreatment) for men with indolent disease [disease that progresses at a slow pace]," Ostrer explained.

Ostrer and his colleagues believe that the NG-CNA assay will be significant for "personalized medicine by identifying aggressive tumors and genetic mutations that are predictors of response to targeted therapies."

Click here to learn about better radiation therapy outcomes for African American men with prostate cancer.
