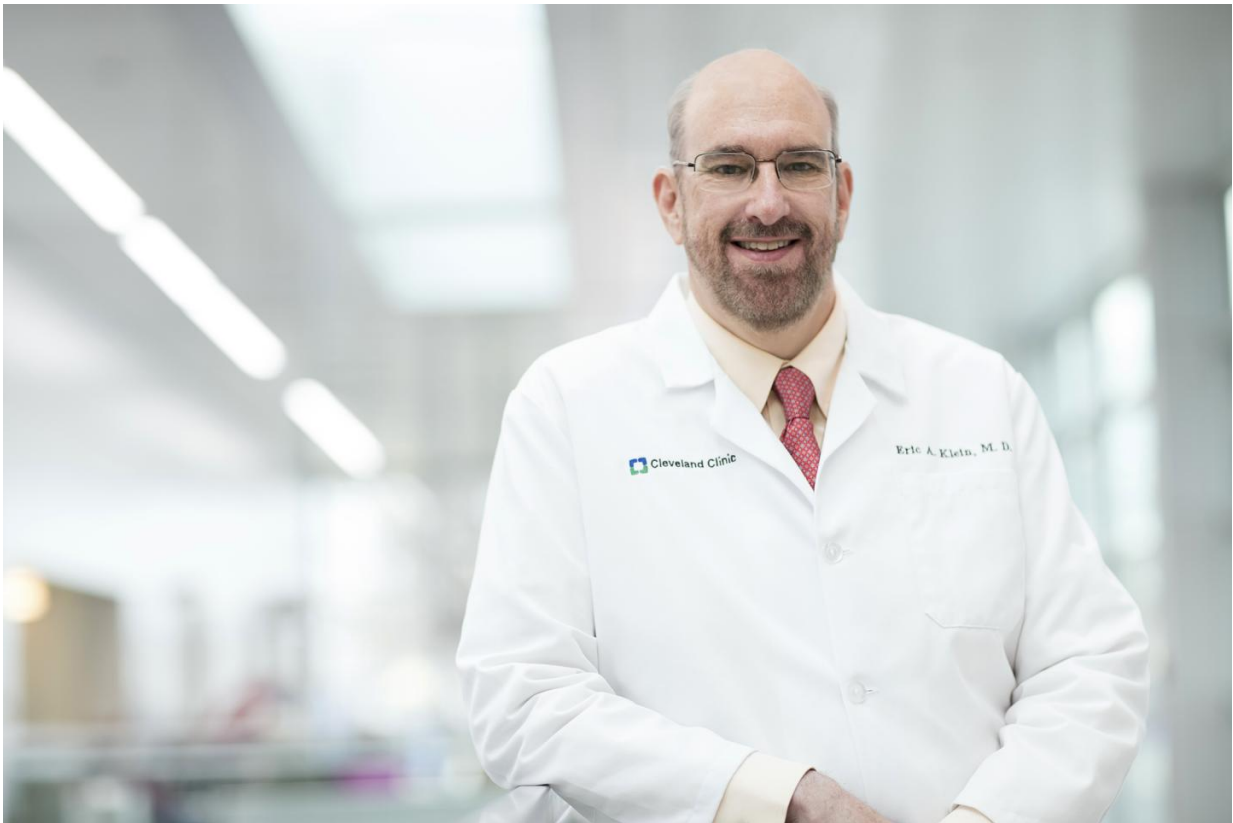


New blood test is more accurate in predicting prostate cancer risk than PSA

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Eric Klein, M.D., is chair of Cleveland Clinic's Glickman Urological & Kidney Institute. Credit: Cleveland Clinic

A team of researchers from Cleveland Clinic, Louis Stokes Cleveland VA Medical Center, Kaiser Permanente Northwest, and other clinical

sites have demonstrated that a new blood test known as IsoPSA detects prostate cancer more precisely than current tests in two crucial measures - distinguishing cancer from benign conditions, and identifying patients with high-risk disease.

By identifying molecular changes in the [prostate](#) specific antigen (PSA) protein, the findings, published online last month by *European Urology*, suggest that once validated, use of IsoPSA may substantially reduce the need for biopsy, and may thus lower the likelihood of overdiagnosis and overtreatment of nonlethal prostate cancer.

The research team, led by Cleveland Clinic's Eric Klein, M.D., conducted a multicenter prospective study of 261 men scheduled for prostate biopsy at five academic and community centers in the U.S. enrolled between August 2015 and December 2016.

"Despite criticism, PSA has transformed the landscape of early detection, screening, and management of prostate cancer in the last few decades," said Dr. Klein, chair of Cleveland Clinic's Glickman Urological & Kidney Institute. "Unfortunately, PSA is tissue-specific but not cancer-specific, leading to overdiagnosis and overtreatment of biologically insignificant cancers, which is widely recognized as a key limitation in its clinical utility."

The study directly compared the clinical performance of a new test based on PSA, called IsoPSA, to PSA itself with patients already scheduled for [prostate biopsy](#). IsoPSA proved significantly superior to PSA in two key indications: discriminating between [prostate cancer](#) and benign conditions; and identifying patients with high-grade disease. The former indication is potentially useful for using IsoPSA for screening by primary care physicians, while the second is helpful for urologists in identifying patients who would benefit from curative intent therapy and other applications.

The results show that if validated and adopted clinically, IsoPSA could significantly reduce the rate of unnecessary biopsies by almost 50 percent. "The methodology used in the IsoPSA assay represents a significant departure from conventional ways to define biomarkers in blood, and may be applicable to improving other cancer biomarkers," said Dr. Klein.

"Due to its inherent simplicity, requiring only a blood draw and presenting information to the physician in familiar context using a single number - just like PSA itself - we are quite hopeful in IsoPSA's future utility after further validation studies," said Mark Stovsky, M.D., co-author and staff member, Cleveland Clinic Glickman Urological & Kidney Institute.

Provided by Cleveland Clinic

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