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# Genetic test may reduce need for repeat biopsy for prostate cancer

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Karim Kader, MD, PhD, urologic surgeon at UC San Diego Health System.

Karim Kader, MD, PhD, associate clinical professor at the UC San Diego School of Medicine, together with a team of researchers from Wake Forest University School of Medicine, have developed a genetic test to predict a man's risk for prostate cancer. Use of the test could reduce the need for repeat biopsies in men who have had a negative biopsy. Results of the multicenter study were recently published online in the journal of *European Urology*.

"The genetic test outperformed the PSA test in assessing cancer risk," said Kader, co-investigator and urologic surgeon at UC San Diego Health System. "If results of this blood test were factored into prostate cancer predictors such as total free PSA, free PSA, number of core samples taken at biopsy, and family history, we would have a more accurate

picture of a whether or not a man is likely to develop the sometimes fatal disease."

Kader and researchers evaluated 1,654 men in the Reduction by Dutasteride of Prostate Cancer Events (REDUCE) clinical trial. All the men had biopsies and consented to genetic studies that looked for the presence of germline single nucleotide polymorphisms (SNPs). SNPs are genetic variations within an individual's DNA sequence which may have a positive association with prostate cancer risk as well as other chronic diseases.

"Avoiding repeat procedures, particularly in older men, can help reduce the risk of infection and potential hospitalizations," said Kader. "The genetic score is available at any time in a man's lifetime and could be used as a pre-screening test thus leaving aggressive PSA screening to men at a higher genetic risk."

About 1 man in 6 will be diagnosed with prostate cancer during his lifetime. In 2012, more than 241,700 new cases of prostate cancer will be diagnosed. During the course of diagnosing patients, more than one million men are biopsied each year in the U.S. Approximately 30 percent go on to have repeat biopsies.

Provided by University of California - San Diego

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