

**Patient**

Patient Name: David Sample  
Date of Birth: 12/27/1959  
MRN/Patient #: 8979821  
Prostate Volume: 30cc  
PSA: 6.7 ng/mL  
DRE: Normal

**Specimen**

Specimen #: 72389  
Collection Date: 1/28/2023  
Received Date: 02/01/2023  
Report Date: 02/04/2023  
Specimen Type: Post DRE Urine  
Mdx Accession #: SL-91322

**Account**

Physician: Dr. Smith  
Account: Urology Associates  
Address: 15279 Alton Parkway,  
Suite 100  
City/State/Zip: Irvine, CA 92618

**PATIENT RESULT: ELEVATED RISK**

**Elevated Risk: This patient's test result indicates an elevated risk for the detection of Gleason Score (GS) $\geq$ 7 prostate cancer on biopsy.**

In the Select mdx pivotal study<sup>1</sup>, a clinical model combining urinary biomarkers and clinical factors was applied to generate a risk score that increases with the probability of detecting GS $\geq$ 7 cancer on biopsy. This raw score has been converted to a personalized positive predictive value that ranges from 0 - 100%:

- Personalized positive predictive value of 29% for detection of GS $\geq$ 7 prostate cancer, and
- Personalized positive predictive value of 27% for detection of GS 6 prostate cancer.

Test results should be interpreted in conjunction with other available laboratory and clinical data and relevant guidelines to augment the patient-physician shared decision-making process, including the decision for biopsy. Select mdx does not replace other clinical and genetic risk factors, which should be considered as independent risk factors for prostate cancer.

In the Select mdx pivotal study, for patients with low-risk test results, Select mdx yielded a negative predictive value of 95% for detection of GS $\geq$ 7 prostate cancer, and a negative predictive value of >99% for for detection of GS $\geq$ 8 prostate cancer.<sup>1</sup>

Questions about these results? Contact Client Services at 866.259.5644 or go to [www.mdxhealth.com/selectreport](http://www.mdxhealth.com/selectreport)

**Test Description:**

Select mdx for Prostate Cancer is a reverse-transcription PCR (RT-PCR) assay performed on urine specimens collected immediately following DRE from patients who are being considered for prostate biopsy. The test measures the urinary mRNA levels of DLX1 and HOXC6 biomarkers to aid in patient selection for prostate biopsy. Higher levels of DLX1 and HOXC6 mRNA are associated with an increased probability for GS $\geq$ 7 prostate cancer.<sup>1</sup> A clinical model combining DLX1 and HOXC6 mRNA levels with established clinical risk factors, including PSA, prostate volume, DRE findings and age, is used to estimate the likelihood of detecting GS $\geq$ 7 prostate cancer upon biopsy, with an area under the curve (AUC) of 0.85 (95% CI: 0.83-0.88), in addition to the likelihood of no cancer or GS $\leq$ 6 disease.<sup>2</sup> Performance is based on the presence of all relevant data elements; if all data are not available, results should be interpreted with caution and AUC of the test will vary. Performance characteristics were established in a clinical validation study of 1,955 men from Germany, France, and The Netherlands undergoing initial prostate biopsy due to suspected prostate cancer.<sup>2</sup> Due to EU privacy regulations, patient racial and ethnic data were unavailable and may not reflect the diversity of a US population. Select mdx is not indicated for use in patients receiving treatment known to directly affect PSA levels (including 5 $\alpha$ -reductase inhibitors such as finasteride or dutasteride). These medications are known to affect components of the Select mdx clinical model, and patients on such medications were excluded from Select mdx clinical validation studies.

**Comments:**

References:

<sup>1</sup> Haese A, et al. J Urol 2019; Hendriks RJ, et al. Prostate 2017; Hessels D, et al. Trans Med Communications 2017; Dijkstra S, et al. BJU Int 2017; Van Neste L, et al. Eur Urol 2017; Alinezhad S, et al. PLoS ONE 2016; Leyten GH, et al. C/in Cancer Res 2015; Vinarskaja A, et al. Cancers 2011.

<sup>2</sup> Haese A, et al. J Urol 2019.

Disclaimer:

Mdxhealth is regulated under the Clinical Laboratory Improvement Amendments (CLIA) and College of American Pathologists (CAP) as an accredited laboratory to perform high complexity clinical testing. The Select mdx for Prostate Cancer test was developed, and its performance characteristics determined by mdxhealth. It has not been reviewed by the U.S. Food and Drug Administration. The FDA has determined such clearance or approval is not necessary.

CLIA# 05D2033858; CAP# 8015399.

Ruben Gamez, MD, Laboratory Director

