



PSA testing can find prostate cancer early before it spreads from the prostate. However, PSA tests can also give false positives and find indolent prostate cancer that doesn't need treatment, for example, only 1 in 4 positive PSA tests is due to prostate cancer (1,2). PSA testing can lead to overdiagnosis and overtreatment with men opting for unnecessary and potentially harmful, invasive prostate biopsies (1,2).



ClarityDX Prostate combines lab results for;



✓ Total PSA ✓ Percent free PSA

What is ClarityDX Prostate?

and two to five clinical features;

✓ Age

✓ Previous negative biopsies

✓ DRE

✓ Prostate volume (MRI)

✓ PI-RADS (MRI)

These lab results and clinical features are used to calculate the risk of having clinically significant prostate cancer, defined as Gleason Grade Group 2 or higher, $(GG \ge 2)$ on prostate biopsy.

ClarityDX Prostate is indicated for use to aid in the decision for prostate biopsy in men who have an elevated total PSA and/or an abnormal DRE and without a previous history of prostate cancer (3-8).



Why use

ClarityDX Prostate was developed using data from five independent cohorts totaling 3,448 men.

ClarityDX Prostate?

The study demonstrates that ClarityDX Prostate* is up to 4X more accurate than PSA at predicting individuals without aggressive prostate cancer.
*ClarityDX Prostate + MRI + DRE

This improved specificity can be used to better inform clinical decision-making regarding the need for further screening.



ClarityDX Prostate is flexible to the availability of MRI and DRE data due to four optimized risk models that provide high accuracy for predicting clinically significant prostate cancer in a variety of clinical settings.

	Validation				
•	AUC	Sensitivity	Specificity	PPV	NPV
PSA	0.72	95%	12%	46%	78%
% Free PSA	0.72	95%	11%	46%	72%
1 ClarityDX Prostate	0.82	95%	32%	52%	89%
2 ClarityDX Prostate DRE	0.82	95%	35%	54%	91%
3 ClarityDX Prostate MRI	0.87	95%	45%	50%	94%
4 ClarityDX Prostate + MRI + DRE	0.87	95%	47%	51%	94%
AUC: Receiver Operating Characteristic Area Under the Curve		NPV: Negative Predictive Value		PPV: Positive Predictive Value	

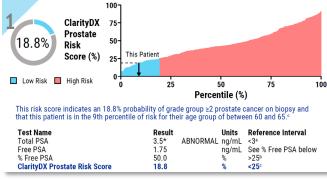


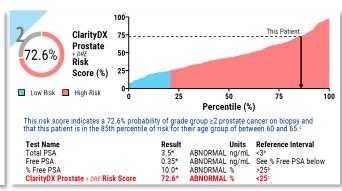
ClarityDX Prostate is intended to be done as a reflex test after elevated PSA levels are detected and before a prostate biopsy. This fits perfectly within the Canadian Urology Association (CUA) guidelines as an adjunctive strategy to be performed after a high PSA level is detected and before a biopsy and or MRI is performed (3).

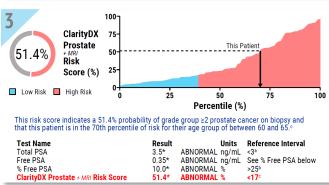


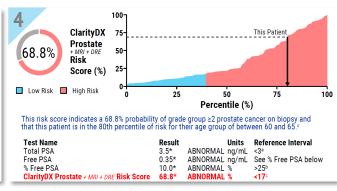
Interpreting ClarityDX Prostate Results

The ClarityDX Prostate Patient Report provides the patient's total PSA, % free PSA, and the ClarityDX Prostate Risk Score. The risk score is provided as a percent probability of $GG \ge 2$ prostate cancer and is reported with the patient's risk associated with their age group. A risk score above the threshold indicates a high risk for clinically significant prostate cancer.









References

- 1) Mason et al. 2022. Can Urol Assoc J. 16(4).
- 2) Brenner et al. 2022. CMAJ. 194 (17)
- 3) Hyndman et al. (2024). npj Digital Medicine 7, 163.
- 4) Wallis et al. (2024) JCO 42, e17105-e17105.
-) Hyndman et al. (2024). Can Urol Assoc J 18 (6Suppl).
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- 7) Paproski et al. (2023). Eur Urol 83, S91-S92.
- 8) Paproski et al. (2023). Can Urol Assoc J. 17(6 Suppl 2)

