

**Name:** Todd Cohen, MD  
Vice President of Medical Affairs - Urology  
**Company/Organization:** Myriad Genetic Laboratories, Inc.  
**Address:** 320 Wakara Way, Salt Lake City UT 84108  
**Phone:** 801-834-6076  
**Email:** [tcohen@myriad.com](mailto:tcohen@myriad.com)  
**Date of Request:** June 7, 2018  
**NCCN Guidelines Panel:** Prostate Cancer Treatment

On behalf of Myriad Genetic Laboratories, Inc., I respectfully request that the NCCN Prostate Cancer Panel review the enclosed request for modifications in order to have consistency in the manner with which tumor-based molecular assays are presented within the guidelines.

**Specific changes:**

1. On page PROS-3, Footnote L. Change to: “Consider the use of tumor-based molecular assays (Decipher, Oncotype DX Prostate, Prolaris, Promark) in men with low or favorable intermediate risk disease with life expectancy of  $\geq 10$  y. Retrospective studies have shown....”
2. On page PROS-3, Footnote C, please insert the following sentence following the Footnote. (Insert) “Consider germline testing when personal history of high-grade prostate cancer (Gleason score  $\geq 7$ ) at any age with  $\geq 1$  close blood relative with ovarian carcinoma of any age or breast cancer  $\leq 50$  y or two relatives with breast, pancreatic, or prostate cancer (Gleason score  $\geq 7$  or metastasis) at any age.”
3. On page MS-5, please modify the following sentence. “Although full assessment of their clinical utility requires prospective randomized clinical trials, which are unlikely to be done, the panel believes that (change to) consideration of the use of tumor-based molecular assays in men with clinically localized disease if life expectancy  $\geq 10$  y is warranted.”
4. On page MS-6, please modify the following paragraph. “The panel recommends inquiring about family and personal history of cancer, with ~~referral to genetic counseling~~ (insert) consideration of genetic counseling and testing if a familial cancer syndrome is suspected. In addition, due to the high prevalence of germline mutations, the panel recommends consideration of germline testing for all men with metastatic and high-/very-high-risk clinically localized prostate cancer (insert) with genetic counseling provided by a qualified healthcare professional ~~before and after such testing is essential.~~

**Rationale:** The NCCN Prostate Cancer Guidelines Version 2.2018 (March 8, 2018) has included clarification of the use of molecular testing in Risk Stratification and Staging Workup on page PROS-2. With respect to Specific change #1, Footnote L on page PROS-3, the word changes are requested to have consistency with the statements in the “Molecular testing of tumor” on page PROS-2, where it states “Consider if life expectancy  $\geq 10$  y.”

With respect to Specific change #2, Footnote C on page PROS-3, the word changes are requested to have consistency with the statements in the “Germline testing” on page PROS-2, where it states “Consider if strong family history”. In addition, the changes requested are consistent (and identical) with statements on page BRCA-1 of the NCCN Genetic/Familial High-Risk Assessment: Breast and Ovarian Guidelines Version 1.2018 (October 3, 2017) for personal history of prostate cancer Gleason score  $\geq 7$ .

With respect to Specific change #3, page MS-5, again the word changes are requested to have consistency with the statements in the “Molecular testing of tumor” on page PROS-2, where it states “Consider if life expectancy  $\geq 10y$ .”

For Specific change #4, page MS-6, the requested wording recognizes ASCO, ACOG and other professional society position statements affirming that physicians with the necessary training can and should provide genetic counseling to their patients (i.e., see <https://www.asco.org/about-asco/press-center/news-releases/asco-releases-updated-policy-statement-genetic-and-genomic>, <https://www.acog.org/Clinical-Guidance-and-Publications/Position-Statements/Access-to-Genetic-Testing>).

Since the first mention of tumor-based molecular assays in the 2015 NCCN Prostate Cancer guidelines, data have been published in support of the Prolaris<sup>®</sup> test, a 46-gene RNA-expression assay that directly measures tumor cell growth characteristics to generate a cell-cycle progression (CCP) score. In multiple published studies, the CCP score proved to be an independent and the most powerful variable in predicting the risk of lethal prostate cancer, as determined by the clinically meaningful oncologic endpoints of prostate cancer-specific mortality, metastasis, and biochemical recurrence after radical prostatectomy.<sup>1-10</sup>

Given the existing published data and Medicare coverage for Prolaris and other prostate cancer prognostic tests, as well as tests for germline mutations, physicians have incorporated these tests into routine clinical practice. Our request for word changes is to allow for consistency of the recommendation already noted by the panel. We believe that these changes will facilitate the improved access to such testing for appropriate patients.

**Literature support:** A list of all publications supporting the use of Prolaris to predict lethal prostate cancer is referenced below.

Sincerely,



Todd Cohen, MD.  
VP of Medical Affairs, Urology  
Myriad Genetic Laboratories, Inc.



Johnathan Lancaster, MD, PhD.  
Chief Medical Officer  
Myriad Genetic Laboratories, Inc.

## References:

1. Cuzick J, Swanson GP, Fisher G, et al. Transatlantic Prostate Group. Prognostic value of an RNA expression signature derived from cell cycle proliferation genes in patients with prostate cancer: a retrospective study. *Lancet Oncol*. 2011 Mar;12(3):245-55.
2. Cuzick J, Berney DM, Fisher G, et al. Transatlantic Prostate Group. Prognostic value of a cell cycle progression signature for prostate cancer death in a conservatively managed needle biopsy cohort. *Br J Cancer*. 2012 Mar 13;106(6):1095-9.
3. Cooperberg MR, Simko JP, Cowan JE, et al. Validation of a cell-cycle progression gene panel to improve risk stratification in a contemporary prostatectomy cohort. *J Clin Oncol*. 2013 Apr 10;31(11):1428-34.
4. Freedland SJ, Gerber L, Reid J, et al. Prognostic utility of cell cycle progression score in men with prostate cancer after primary external beam radiation therapy. *Int J Radiat Oncol Biol Phys*. 2013 Aug 1;86(5):848-53.
5. Bishoff JT, Freedland SJ, Gerber L, et al. Prognostic utility of the CCP score generated from biopsy in men treated with prostatectomy. *J Urol* 2014 Aug; 192(2):409–14.
6. Cuzick J, Stone S, Fisher G, et al. Validation of an RNA cell cycle progression score for predicting death from prostate cancer in a conservatively managed needle biopsy cohort. *Br J Cancer*. 2015; 113:382–9.
7. Koch MO, Cho JS, Kaimakliotis HZ, et al. Use of the cell cycle progression (CCP) score for predicting systemic disease and response to radiation of biochemical recurrence. *Cancer Biomark*. 2016 Jun 7;17(1):83-8.
8. Tosoian JJ, Chappidi MR, Bishoff JT, et al: Prognostic utility of biopsy-derived cell cycle progression score in patients with National Comprehensive Cancer Network low-risk prostate cancer undergoing radical prostatectomy: implications for treatment guidance. *BJU Int* 2017; 120:808-4.
9. Lin DW, Crawford ED, Keane T, et al: Identification of men with low-risk biopsy-confirmed prostate cancer as candidates for active surveillance. *Urol Oncol* 2018 Jun;36(6):310.e7-310.e13. doi:10.1016/j.urolonc.2018.03.011. Epub Apr 11, 2018.
10. Bardot S, Reid J, Latsis S, et al: Evaluating the prognostic utility of the CCP score for predicting prostate cancer aggressiveness in African American men. *J Urol* 194, issue 4, e346 (abstract MP28-19).