ConfirmMDx for Prostate Cancer Risk Assessment

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Procedures addressed

The inclusion of any procedure code in this table does not imply that the code is under management or requires prior authorization. Refer to the specific Health Plan's procedure code list for management requirements.

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<th>Procedure addressed by this guideline</th>
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What is ConfirmMDx testing for prostate cancer

Definition

The ConfirmMDx™ test (MDx Health) is a proprietary epigenetic assay that measures gene methylation associated with the presence of cancer. Results are intended to assist in determining which patients likely have a true negative biopsy, and which patients are at increased risk for occult cancer. Results may prevent unnecessary repeat biopsies in unaffected men, and triage higher risk patients for repeat biopsies and treatment, as needed.¹

- Prostate cancer is the most common cancer among men, with over 150,000 new cases identified each year in the United States.² ³ The median age at diagnosis is 66 years.⁴ Older men are more likely to be affected than younger men, and African American men have higher rates compared to men of other ethnic backgrounds.⁴
- Screening programs for prostate cancer may allow for its early detection. Screening is typically performed by prostate-specific antigen (PSA) test and/or digital rectal examination (DRE).³
- Diagnosis is confirmed by prostate biopsy.⁵ ⁷ Biopsy is typically performed by collecting approximately 12 needle biopsy cores.⁷
- Initial biopsies only detect 65-77% of prostate cancers, and repeat biopsies are frequently performed.⁸ ⁹ The false negative rate of biopsy may be as high as 25%.¹⁰
**Test information**

- ConfirmMDx™ measures the methylation levels (using quantitative methylation PCR) of 3 genes (GSTP1, APC and RASSF1) associated with prostate cancer. The test is performed on formalin-fixed, paraffin-embedded prostate specimens from a 12-core biopsy.

- Results are reported with methylation positive/negative for each biopsy core, along with a map of the regions where methylation is distributed.¹

- Negative predictive value of the test is approximately 90%, based on results of a large, blinded clinical evaluation study.¹¹

**Guidelines and evidence**

*National Comprehensive Cancer Network (NCCN)*

- The National Comprehensive Cancer Network (NCCN, 2019) Clinical Practice Guidelines in Oncology for Prostate Cancer Early Detection state the following:⁷
  - “Those patients with negative prostate biopsies should be followed with DRE and PSA. Tests that improve specificity in the post-biopsy state-including percent PSA, 4Kscore, PHI, PCA3, and ConfirmMDx—should be considered in patients thought to be higher risk despite a negative prostate biopsy.”
  - “Biomarkers that improve the specificity of detection are not, as yet, recommended as firstline screening tests. However, there may be some patients who meet PSA standard for consideration of prostate biopsy, but for whom the patient and/or physician wish to further define the probability of high-grade cancer. A percent free PSA <10%, PHI >35, EPI score greater than 15.6, or 4K score (which provides an estimate of the probability of high-grade prostate cancer) are potentially informative in patients who have never undergone biopsy or after a negative biopsy; a PCA3 score >35 is potentially informative after a negative biopsy.”

**Literature Review**

A number of peer-reviewed expert-authored studies that evaluate ConfirmMDx for detection of prostate cancer are available.⁸⁻¹⁷ Most of these studies demonstrate the potential for the assay to help urologists accurately determine which patients likely have a true negative biopsy, and which patients are at increased risk for occult cancer.

**Criteria**

Coverage for ConfirmMDx will be granted when the following criteria are met:

- No previous ConfirmMDx testing on the same sample when a result was successfully obtained, AND
• No previous 4Kscore testing performed after the most recent negative biopsy when a result was successfully obtained, AND
• Member is not under active surveillance for low stage prostate cancer, AND
• Negative prostate biopsy within the past 24 months, AND
• Member is considered at higher risk for prostate cancer by one or more of the following:
  o Family history of 1st degree relative with prostate cancer diagnosed younger than age 65 years, and/or
  o Family history of two or more first-degree relatives with prostate cancer diagnosed at any age, and/or
  o African American race, and/or
  o Known mutation in a gene associated with increased risk of prostate cancer (e.g., BRCA1/2, HOXB13 (G84E mutation carriers), MLH1, MSH2, MSH6, PMS2, EPCAM), and/or
  o PSA level of greater than 10 ng/ml, and/or
  o PSA level increase of greater than 0.35 ng/ml/year if PSA level less than or equal to 10 ng/ml, and/or
  o PSA doubling time of less than 3 years, when initial PSA level is greater than or equal to 4 ng/ml and other causes of rising PSA (i.e., infection, inflammation) have been ruled out for individuals whose PSA doubling occurred in less than 2 years

References


