Beyond the PSA: Genomic Testing in Localized Prostate Cancer

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5:00 p.m. ET/2:00 p.m. PT
ZERO’s mission is to end prostate cancer. As a leader in the fight against prostate cancer, ZERO advances research, encourages action, and provides education and support to men and their families.
Dr. Moses is Assistant Professor of Urologic Surgery at Vanderbilt University Medical Center and Chief of Urology at Nashville General Hospital in Nashville, TN.

He received his training at Emory University, and completed a fellowship at Memorial Sloan-Kettering Cancer Center where he served as Chief Administrative Fellow. Clinically, he focuses on advanced prostate cancer care (metastatic and castrate-resistant disease), as well as renal, bladder and testicular cancer.
• Localized prostate cancer
• Genomic testing
• Treatment options for localized prostate cancer
• Staying informed and involved
  – Questions to ask your doctor
• Question and answer
What is Localized Prostate Cancer?

- Localized prostate cancer is only in the prostate gland.
- Locally advanced prostate cancer is in the prostate and has spread to nearby lymph nodes or the seminal vesicles.
How is Prostate Cancer Diagnosed?

• Common tools used to diagnose:
  – Prostate Specific Antigen (PSA) test
  – Digital Rectal Exam (DRE)
  – Biopsy – tissue sample
Once Diagnosed

- Learning you have prostate cancer can be difficult
- Ask questions about treatment options
- Ask questions about potential side effects from treatment
- Consider a second opinion
- Gather information about your cancer
- When caught at an early stage, prostate cancer can be cured
Factors that can impact your treatment decisions include:

- PSA level
- Gleason score
- Clinical stage
- Risk category

Genomic testing can also help understand how the cancer will behave.

Understanding more about the cancer helps with making the best decision for treatment.
Risk Categories*

- **Low Risk**
  - PSA less than or equal to 10
  - Gleason score less than or equal to 6
  - AND Clinical stage T1-2a

- **Moderate Risk**
  - PSA between 10 and 20
  - Gleason score of 7
  - Or Clinical stage T2b

- **High Risk**
  - PSA greater than 20
  - Gleason equal or greater than 8
  - Or Clinical stage T2c-3a

*D’Amico Classification System*
• New tests available help determine how likely a prostate cancer tumor is to spread
• Look at unique characteristics of the tumor and make a prediction
• Some tests can be used after biopsy and some after a radical prostatectomy
• Useful information to have before making a treatment decision
How is Genomic Testing Valuable?

• Helpful to make treatment decisions
• Avoid or delay treatment
• Risk associated with treatment for prostate cancer can include:
  – Erectile dysfunction
  – Urinary incontinence
  – Rectal incontinence

Many men have treatment for cancer that may never spread or cause harm or death
# Genomic Testing Used After a Biopsy

<table>
<thead>
<tr>
<th></th>
<th><strong>Oncotype DX Prostate</strong></th>
<th><strong>Prolaris</strong></th>
<th><strong>ProstaVysion</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indications</strong></td>
<td>Positive Biopsy Low/Int Risk Only</td>
<td>Positive PCa: Biopsy or RP</td>
<td>Positive biopsy</td>
</tr>
<tr>
<td><strong>Outcome Predicted</strong></td>
<td>Adverse pathology : Primary Gleason ≥4, pT3</td>
<td>PCa-specific risks: mortality, metastasis, BCR</td>
<td>Score between 0-10 Risk for BCR: Good, Moderate or Poor</td>
</tr>
<tr>
<td><strong>Measure</strong></td>
<td>Adverse pathology – (17 Genes)</td>
<td>Disease progression – (46 Genes)</td>
<td>• ERG gene fusion/ translocation (IHC) • Loss of PTEN (FISH)</td>
</tr>
<tr>
<td><strong>Lab</strong></td>
<td>Genomic Health</td>
<td>Myriad Genetic Laboratories, Inc.</td>
<td>Bostwick</td>
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</tbody>
</table>
• Confirmed prostate cancer diagnosis
• Low risk disease
• Uses biopsy tissue
• Looks at 17 gene sequence
• Provides Genomic Prostate Score (GPS) to predict the likelihood that the cancer will grow and spread
• Helpful when considering active surveillance or immediate treatment
Prolaris

- Confirmed prostate cancer diagnosis
- Low risk disease
- Used after a biopsy or after a radical prostatectomy
- Looks at 46 genes
- Predicts likelihood of metastasis, biochemical recurrence, and death from prostate cancer
• Confirmed prostate cancer diagnosis
• Uses biopsy tissue
• Looks at a three gene sequence
• Provides personalized genetic panel to determine aggressiveness
• Helpful when considering active surveillance or immediate treatment
Most localized prostate cancers will not advance and some may not need treatment.
# Genomic Tests Used After Radical Prostatectomy

<table>
<thead>
<tr>
<th></th>
<th>Prolaris</th>
<th>Decipher</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indications</strong></td>
<td>Positive Biopsy, Post RP</td>
<td>Post RP</td>
</tr>
<tr>
<td><strong>Outcome Predicted</strong></td>
<td>• 10 yr. risks of PCa-specific mortality</td>
<td>• 5 year risk mets</td>
</tr>
<tr>
<td></td>
<td>• Metastasis</td>
<td>• 3 year risk BCR</td>
</tr>
<tr>
<td></td>
<td>• Biochemical recurrence</td>
<td></td>
</tr>
<tr>
<td><strong>Measure</strong></td>
<td>Disease progression (46 Genes)</td>
<td>Disease progression (22 Genes)</td>
</tr>
<tr>
<td><strong>Lab</strong></td>
<td>Myriad Genetic Laboratories, Inc.</td>
<td>GenomeDx</td>
</tr>
</tbody>
</table>
Prolaris

- Used after a biopsy or after a radical prostatectomy
- Looks at 46 genes
- Predicts likelihood of metastasis, biochemical recurrence and death from prostate cancer
- Information is helpful to determine if additional treatment is indicated
• Intermediate and high risk
• Used after a biopsy or after a radical prostatectomy
• Looks at 22 genes
• Predicts likelihood of prostate cancer metastasis
• Information is helpful to determine if additional treatment is indicated
Talk to Your Doctor

• Before surgery:
  – Prolaris
  – Oncotype Dx
  – ProstaVysion

• After surgery:
  – Prolaris
  – Decipher

• Commonly available?
• Covered by insurance?
Staying Informed and Involved
• What do my current PSA and biopsy results indicate about my risk levels?
• At this point, what treatment are you recommending?
• What are some alternative treatments? Would better knowing my risk category change your recommendation?
• I am interested in a genomic test. Which would you recommend for me at this time?
• Why are you recommending me this test?
• How would I receive this test?
• Based on the results of this test, what would your treatment recommendations be?
• Why would you make these recommendations?
ZERO is here to support you through your prostate cancer journey. We encourage you to use these resources:

- Visit our website to learn about prostate cancer at www.zerocancer.org
- Subscribe to our monthly e-newsletter
- Participate or volunteer at a ZERO Run/Walk in your area to connect with others impacted by prostate cancer
- Become one of ZERO’s Heroes and share your journey with others
ZERO Contacts

• Ivy Ahmed, Director of Patient Support Services, ivy@zerocancer.org, (202) 280-6173

• Alice Lee, Patient Support Services Assistant, alice@zerocancer.org, (202) 303-3120
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