

**ZERO**  
THE END OF PROSTATE **CANCER**

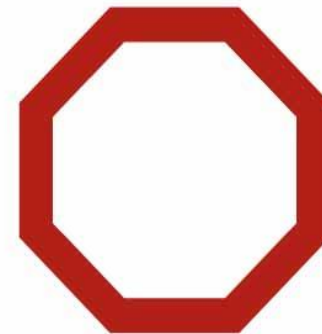


# Beyond the PSA: Genomic Testing in Localized Prostate Cancer

Kelvin A. Moses, MD, PhD  
Vanderbilt University Medical Center

Wednesday, December 2, 2015  
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.



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# Featured Presenter



**Dr. Moses** is Assistant Professor of Urologic Surgery at Vanderbilt University Medical Center and Chief of Urology at Nashville General Hospital in Nashville, TN.

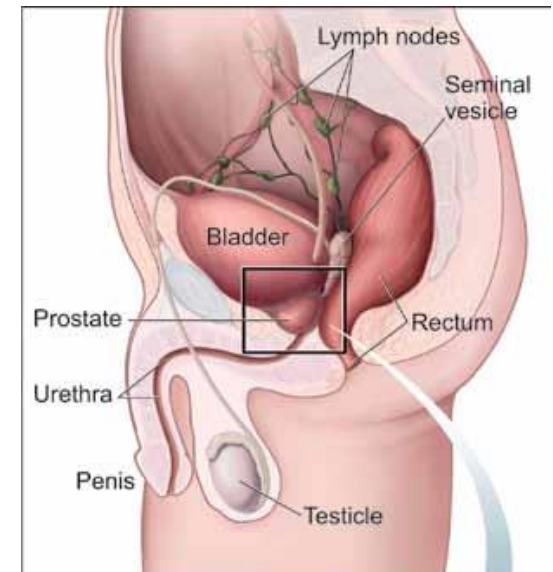
He received his training at Emory University, and completed a fellowship at Memorial Sloan-Kettering Cancer Center where he served as Chief Administrative Fellow. Clinically, he focuses on advanced prostate cancer care (metastatic and castrate-resistant disease), as well as renal, bladder and testicular cancer.

- Localized prostate cancer
- Genomic testing
- Treatment options for localized prostate cancer
- Staying informed and involved
  - Questions to ask your doctor
- Question and answer



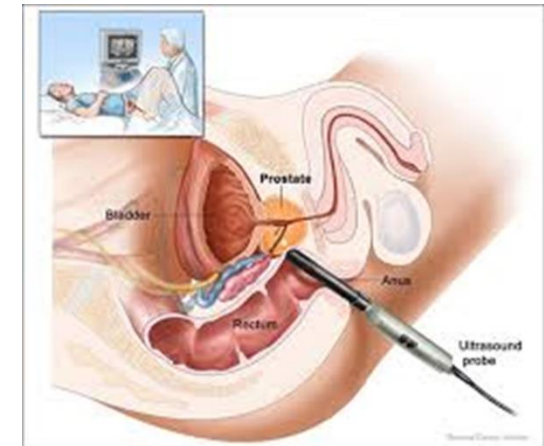
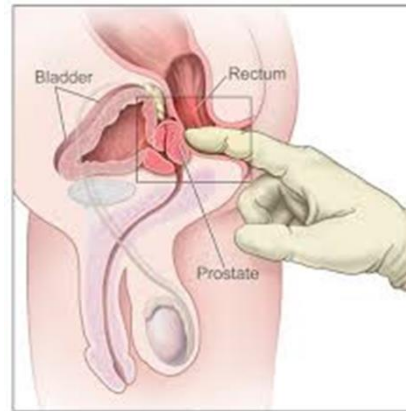
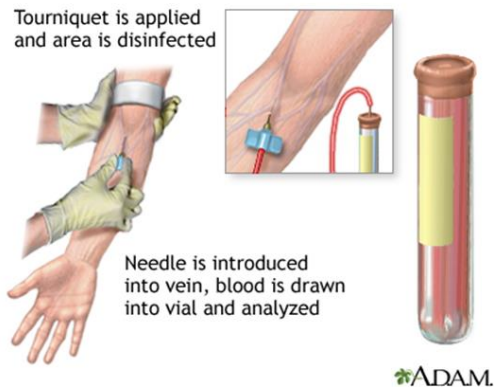
# What is Localized Prostate Cancer?

- 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



# Next Steps

- 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\*

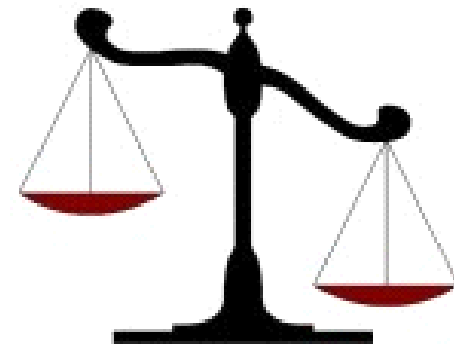
- Low Risk
  - PSA less than or equal to 10
  - Gleason score less than or equal to 6
  - AND Clinical stage T1-2a
- Moderate Risk
  - PSA between 10 and 20
  - Gleason score of 7
  - Or Clinical stage T2b
- High Risk
  - PSA greater than 20
  - Gleason equal or greater than 8
  - Or Clinical stage T2c-3a



- 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

	<b>Oncotype DX Prostate</b>	<b>Prolaris</b>	<b>ProstaVysion</b>
<b>Indications</b>	Positive Biopsy Low/Int Risk Only	Positive PCa: Biopsy or RP	Positive biopsy
<b>Outcome Predicted</b>	Adverse pathology : Primary Gleason $\geq 4$ , pT3	PCa-specific risks: mortality, metastasis, BCR	Score between 0-10 Risk for BCR: Good, Moderate or Poor
<b>Measure</b>	Adverse pathology – (17 Genes)	Disease progression – (46 Genes)	<ul style="list-style-type: none"> <li>• ERG gene fusion/ translocation (IHC)</li> <li>• Loss of PTEN (FISH)</li> </ul>
<b>Lab</b>	Genomic Health	Myriad Genetic Laboratories, Inc.	Bostwick

- 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

- 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



# Managing and Treating Localized Prostate Cancer

- Active Surveillance
- Surgery- Radical Prostatectomy
- Radiation
  - External beam radiation
  - Brachytherapy
- Combination of surgery and radiation
- Cryotherapy

*Most localized prostate cancers will not advance and some may not need treatment*



# Genomic Tests Used After Radical Prostatectomy

	Prolaris	Decipher
<b>Indications</b>	Positive Biopsy, Post RP	Post RP
<b>Outcome Predicted</b>	<ul style="list-style-type: none"> <li>• 10 yr. risks of PCa-specific mortality</li> <li>• Metastasis</li> <li>• Biochemical recurrence</li> </ul>	<ul style="list-style-type: none"> <li>• 5 year risk mets</li> <li>• 3 year risk BCR</li> </ul>
<b>Measure</b>	Disease progression (46 Genes)	Disease progression (22 Genes)
<b>Lab</b>	Myriad Genetic Laboratories, Inc.	GenomeDx

- 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?

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# Staying Informed and Involved

# Questions to Ask Your Doctor

- 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?



**LEARN MORE**

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](http://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](mailto:ivy@zerocancer.org), (202) 280-6173
- Alice Lee, Patient Support Services Assistant, [alice@zerocancer.org](mailto:alice@zerocancer.org), (202) 303-3120

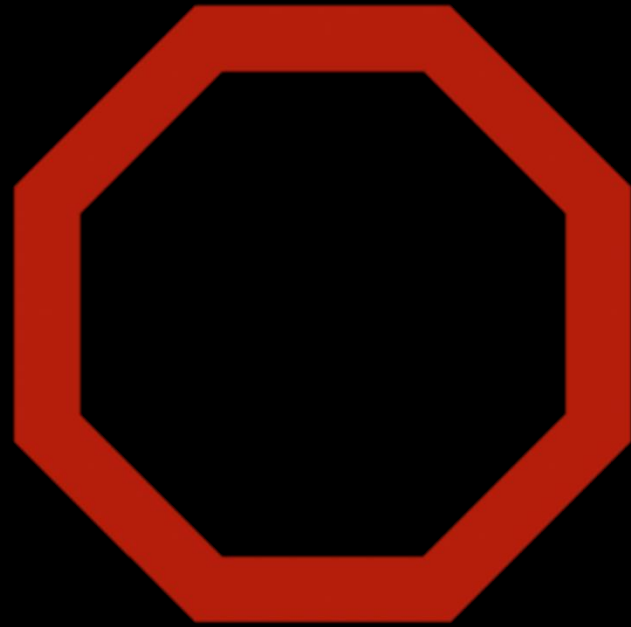
# Question and Answer





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