Information about Prostate Cancer and Patient Screening

What you should know about prostate cancer

* In the US, an estimated 240,000 cases of prostate cancer will be diagnosed in 2011.¹
* In the US, prostate cancer is the second leading cause of cancer related mortality with approximately 33,000 deaths per year.²
* An American male has a 1 in 6 chance (17%) of developing prostate cancer during his lifetime.²
* Three major factors may affect prostate cancer risk - family history, ethnicity, and age.²
* African-American men have a higher incidence of prostate cancer and are more likely to die from the disease than Caucasian men in any age group.²
* More than 2 million men in the US who have had prostate cancer are alive today.¹

What you should know about prostate cancer screening

• Prostate cancer screening is non-invasive, and can be accomplished with a simple Prostate Specific Antigen (PSA) blood test and a Digital Rectal Exam (DRE).
• Prostate cancer deaths rates have decreased 4% per year between 1994 and 2006.²
• The implementation of prostate-specific antigen (PSA) testing in the United States coincided with an increasing incidence of prostate cancer, a shift to earlier stage disease at diagnosis, and decreasing prostate cancer mortality.

Screening Recommendations

American Cancer Society and American Medical Association:
  • Recommend screening after review of individual risks / benefits
American Urological Association:
  • Supports testing for men over 40 who wish to be tested
National Center for Health Statistics:
  • No recommendations
  • It has not yet been shown that screening for prostate cancer decreases the chances of dying from prostate cancer

Potential Screening Benefits¹
  • For some types of cancer, finding and treating the disease at an early stage may result in a better chance of survival and recovery
  • Some screening tests are used because they have been shown to be helpful both in finding cancers early and decreasing the risk of dying from these cancers

Potential Screening Risks¹
  • Screening tests have risks
    - False-negative test results may delay seeking medical attention
    - False-positive test results can cause anxiety and are usually followed by more tests
  • Finding prostate cancer may not improve health or help a man live longer³

<table>
<thead>
<tr>
<th></th>
<th>Caucasian</th>
<th>African-American</th>
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<tbody>
<tr>
<td>Incidence*</td>
<td>146.3</td>
<td>231.9</td>
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<tr>
<td>Mortality*</td>
<td>23.6</td>
<td>56.3</td>
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</table>

*per 100,000 men
PSA Screening Strategies and Prostate Cancer Treatment Options

What you should know about PSA

Prostate Specific Antigen (PSA) is a protein produced by prostate cells that is secreted into the bloodstream. When a prostate cell is cancerous, it secretes more PSA into the bloodstream. PSA can also be secreted as a result of benign prostatic hyperplasia, prostatitis, or other traumas to prostate cells.

PSA value and chance of finding prostate cancer in men age 50+:

<table>
<thead>
<tr>
<th>PSA Value</th>
<th>Risk of Cancer</th>
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<tbody>
<tr>
<td>≤ 0.5 ng/ml</td>
<td>6.6%</td>
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<tr>
<td>0.6 - 1.0</td>
<td>10%</td>
</tr>
<tr>
<td>2.0 - 2.9</td>
<td>7.4 - 17%</td>
</tr>
<tr>
<td>3.0 - 3.9</td>
<td>12 - 26%</td>
</tr>
<tr>
<td>4.0 - 10.0</td>
<td>20 - 30%</td>
</tr>
<tr>
<td>10.0 - 20.0</td>
<td>50 - 75%</td>
</tr>
<tr>
<td>20.0+</td>
<td>90%</td>
</tr>
</tbody>
</table>

A rapid rise in PSA may also be an indication for the need for additional testing.

Potential Personal Screening Strategies

- Annually, starting at age 40 or 45 for men with a family history of prostate cancer
- Annually, starting at 50 for men who are interested in a screening program

As an alternative, a screening strategy can be determined based on a baseline PSA level, as follows:

- Screen every 5 years if PSA is less than 1.0 ng/ml
- Annual / Bi-annual, if PSA is between 1.0 to 1.9 ng/ml
- Annual, if PSA is above 2.0 ng/ml
- Consider asking for a referral to a prostate cancer specialist if PSA is above 2.5 ng/ml
- If the patient is over 75 with a low baseline PSA further testing / treatment may not impact patient survival. Consult a physician to consider the value of additional screening.

Prostate Cancer Treatment Options

At this time there are no definitive randomized outcome studies available for prostate cancer treatment it is important for individual patients to talk with their physicians to determine the treatment most appropriate for their situation. Potential treatment options include:

- Brachytherapy
- Radical Prostatectomy
- Hormonal Therapy
- External Radiation (IMRT / SBRT)
- Combination Therapy
- Active Surveillance

Consult with a prostate cancer specialist with any questions regarding prostate cancer screening, PSA or potential prostate cancer treatments.

References:
3. American Urological Association; “PSA: Best Practice Statement” 2009 Update