Prostate Cancer Survivorship

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Authors/presenters report no relevant conflicts of interest
Outline

• Introduction: facts, stats, epidemiology
• Types of treatments patients receive
• Available guidelines
• Health promotion
• Screening for recurrence
• Screening for second cancers
• Long-Term and late effects of prostate cancer treatment
• Summary
Introduction: Facts and Statistics
Introduction

Figure 3. Leading Sites of New Cancer Cases and Deaths – 2018 Estimates

<table>
<thead>
<tr>
<th>Male</th>
<th>Prostate</th>
<th>164,690</th>
<th>19%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lung &amp; bronchus</td>
<td>93,400</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Colon &amp; rectum</td>
<td>75,610</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Urinary bladder</td>
<td>62,380</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Melanoma of the skin</td>
<td>55,150</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Kidney &amp; renal pelvis</td>
<td>42,680</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Non-Hodgkin lymphoma</td>
<td>41,730</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Oral cavity &amp; pharynx</td>
<td>37,150</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>Leukemia</td>
<td>35,030</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>Liver &amp; intrahepatic bile duct</td>
<td>30,610</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>All sites</td>
<td>856,370</td>
<td>100%</td>
</tr>
</tbody>
</table>

| Female | Breast | 266,120 | 30% |
|        | Lung & bronchus | 112,350 | 13% |
|        | Colon & rectum | 64,640 | 7%  |
|        | Uterine corpus | 63,230 | 7%  |
|        | Thyroid | 40,900 | 5%  |
|        | Melanoma of the skin | 36,120 | 4%  |
|        | Non-Hodgkin lymphoma | 32,950 | 4%  |
|        | Pancreas | 26,240 | 3%  |
|        | Leukemia | 25,270 | 3%  |
|        | Kidney & renal pelvis | 22,660 | 3%  |
|        | All sites | 878,980 | 100% |

| Male | Lung & bronchus | 83,550 | 26% |
|------| Prostate | 29,420 | 9%  |
|      | Colon & rectum | 27,390 | 8%  |
|      | Pancreas | 23,020 | 7%  |
|      | Liver & intrahepatic bile duct | 20,540 | 6%  |
|      | Leukemia | 14,270 | 4%  |
|      | Esophagus | 12,850 | 4%  |
|      | Urinary bladder | 12,520 | 4%  |
|      | Non-Hodgkin lymphoma | 11,510 | 4%  |
|      | Kidney & renal pelvis | 10,010 | 3%  |
|      | All sites | 323,630 | 100% |

| Female | Lung & bronchus | 70,500 | 25% |
|        | Breast | 40,920 | 14% |
|        | Colon & rectum | 23,240 | 8%  |
|        | Pancreas | 21,310 | 7%  |
|        | Ovary | 14,070 | 5%  |
|        | Uterine corpus | 11,350 | 4%  |
|        | Leukemia | 10,100 | 4%  |
|        | Liver & intrahepatic bile duct | 9,660 | 3%  |
|        | Non-Hodgkin lymphoma | 8,400 | 3%  |
|        | Brain & other nervous system | 7,340 | 3%  |
|        | All sites | 286,010 | 100% |

Estimates are rounded to the nearest 10, and cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder. Ranking is based on modeled projections and may differ from the most recent observed data.

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Facts and Stats

• 91% of prostate cancers are discovered at local or regional stage
  – Five-year survival approaches 100%!

• 5-year survival diagnosed at distant stage is 30%

• 10-year survival rate for all stages combined is 98%

Risk is 74% higher in blacks than in whites – unclear why

What kinds of treatment do patients receive?
Expectant management options

**Active surveillance:**
Careful monitoring for disease progression with PSA, DRE, and prostate biopsy at regular intervals

**Watchful waiting:**
Less intensive follow-up, fewer tests, monitoring symptoms
Topics not covered in detail today

- Chemotherapy
- Androgen Deprivation Therapy
  - Primary treating specialist will generally be managing the ADT throughout duration
  - PCP may need to be involved in monitoring and managing adverse effects of ADT
- Immunotherapy
- Metastatic disease
- Palliative care
Reference guidelines
Guidelines

American Cancer Society Prostate Cancer Survivorship Care Guidelines
(CA Cancer J Clin 2014)

ACS process dictates that these guidelines will be updated and rewritten every 5 years

ASCO endorsement of ACS guidelines
(J Clin Oncol 2015)
Health promotion in the prostate cancer survivor
Health promotion

- Obesity: worse health outcomes (prostate cancer-specific mortality and biochemical recurrence)

- Exercise: some studies showing decreased risk of recurrence,
  lower overall and prostate cancer-specific mortality

Cao et al., Cancer Prev Res 2011
Demark-Wahnefried et al., Cancer Epidemiol Biomarkers Prev. 2012
Hu et al., Med Oncol. 2014
Kenfield et al., J Clin Oncol 2011
Rock et al., CA Cancer J Clin. 2012
Health promotion

- Common questions:
  - Diet
  - What supplements should I take?
    - Refer to MSK Herbs website
    - Integrative Medicine

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Demark-Wahnefried et al., Cancer Epidemiol Biomarkers Prev. 2012
Hu et al., Med Oncol. 2014
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Screening for prostate cancer recurrence
Surveillance for Recurrence

• How often should we monitor PSA?

• Who should do the PSA?
  – ASK the specialist to be explicit. WHEN does the responsibility completely transfer to YOU?
Why check a PSA?

To monitor for “Biochemical recurrence”
– Definition
– When to refer back?
**PSA levels**

**What to expect**

**After radical prostatectomy**
- PSA undetectable (<0.03 ng/mL within 2 months)

**After radiation therapy**
- PSA reaches lowest level ("PSA nadir") after 6 months to several years
- Target PSA < 1.0 ng/mL
- "PSA bounce": PSA rises then falls. Self limited, NOT a recurrence but can cause patient concern

**Refer back if**

- PSA becomes detectable
- PSA doubles*

*Note: if PSA hasn’t doubled, provide reassurance and monitor annually

Specialist preferences may vary; when in doubt, reach out!
Practical pointers on PSA

- Common activities that may increase PSA: straining before urination, riding bike, sexual activity

- In RT patients, suggest avoiding above activities before a PSA check
Digital Rectal Exam

• Only in patients with history of RT and detectable PSA
Screening for second malignancies
Screening for Second Primary Cancers

- Slightly higher risk of secondary malignancies after RT compared with surgery
  - Irradiated area: bladder and colon/rectum
- **No evidence** supporting increased frequency or intensity of screening
- Adhere to routine screening guidelines
  - If any symptoms such as hematuria or rectal bleeding, proceed with workup
  - If not due to cancer, talk to treating radiation oncologist and other specialists for multidisciplinary management
Long-term and Late effects of prostate cancer treatment: Identification and management
<table>
<thead>
<tr>
<th>Long-Term and Late Effects of Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SURGERY</strong></td>
</tr>
<tr>
<td>Urinary</td>
</tr>
<tr>
<td>• Incontinence (stress)</td>
</tr>
<tr>
<td>• Urgency, frequency, nocturia, dribbling</td>
</tr>
<tr>
<td>• Urethral stricture</td>
</tr>
<tr>
<td>Sexual</td>
</tr>
<tr>
<td>• Erectile dysfunction</td>
</tr>
<tr>
<td>• Lack of ejaculation</td>
</tr>
<tr>
<td>• Orgasm changes (without erection, associated with incontinence)</td>
</tr>
<tr>
<td>• Penile shortening</td>
</tr>
<tr>
<td><strong>RADIATION THERAPY</strong></td>
</tr>
<tr>
<td>Urinary</td>
</tr>
<tr>
<td>• Same as with surgery</td>
</tr>
<tr>
<td>• Hematuria</td>
</tr>
<tr>
<td>Sexual</td>
</tr>
<tr>
<td>• Progressive erectile dysfunction</td>
</tr>
<tr>
<td>• Decreased semen volume</td>
</tr>
<tr>
<td>Bowel</td>
</tr>
<tr>
<td>• Fecal urgency, frequency, incontinence</td>
</tr>
<tr>
<td>• Blood in stool</td>
</tr>
<tr>
<td>• Rectal inflammation, pain</td>
</tr>
</tbody>
</table>

**BOTH: EXPECTANT MANAGEMENT**

• Stress, anxiety, worry
• Risks associated with repeat biopsies, PSA, DREs
• Symptoms associated with disease progression
Management of Bowel dysfunction

- High-fiber diet, bulking agents, stool softeners, topical steroids, anti-inflammatory agents
- Colorectal cancer screening per routine guidelines
- Other rectal symptoms (e.g. sphincter dysfunction, leakage of stool/mucous, rectal urgency and frequency): occur shortly after radiation therapy and usually improve over time; consider high-fiber diet and bulking agents (e.g. Metamucil®, Benafiber®)
- Refer to specialist if refractory or new onset symptoms
Kegels for men

**How do I identify my pelvic floor muscles?**
Muscle you tighten to prevent urine from leaking; to hold back gas when you don’t want to pass it; to stop urine stream

**How do I perform Kegel exercises?**
Hold pelvic floor muscle in for 10 sec. Slowly and completely relax for 10 seconds. Repeat 10 times, at least 3 times daily.
Don’t use stomach, leg, or buttock muscles.

**When should I do Kegel exercises?**
Before you walk
Before you sneeze or cough
On your way to the bathroom
When you move from sitting to standing

Most frequently-expressed patient fears

• Recurrence
• PSA assay difference between treatment center and outside lab
Assess for distress/depression

- 25% of prostate cancer patients experience increased anxiety
- Nearly 10% with major depressive disorder
- African American patients with cancer are less likely to seek, be referred to, and receive psychosocial services
- Effects of low testosterone may affect mood
- Men undergoing ADT with history of depression may be more likely to develop major depressive disorder

Jayadevappa et al., Psychooncology 2012
Korfage et al, Br J Cancer. 2006
Punnen et al. BJU Int 2013
Traeger et al, J Clin Oncol 2014
Zhang et al, Palliat Support Care 2012
Mohile et al, Crit Rev Oncol Hematol 2009
ADT: Overview of possible late effects

- Cardiovascular and metabolic effects
- Anemia
- Symptoms (hot flashes)
  - Consider SSRIs, SNRIs, or gabapentin (not approved by FDA)
- Bone health – increased risk of osteoporosis and fractures
  - Baseline DXA; calculate FRAX score
  - High risk men: weekly bisphosphonate, annual IV zoledronic acid 5mg, or denosumab
Summary and Take-Home Points
Summary

Things to do:

• Annual PSA; if high or rising refer back to specialist
• DRE only in patients with hx of RT and detectable PSA
• Follow guidelines for standard cancer screening
• Assess for and treat long-term and late effects:
  – Distress, depression, “PSA Anxiety”
  – Bowel, bladder, and sexual dysfunction
• Advise healthy habits (exercise, weight loss)
• For patients on ADT:
  – Optimize bone health with calcium and vitamin D
  – Baseline DEXA and FRAX score calculation
  – If high risk of fracture by FRAX score, consider bisphosphonate or denosumab

Things not to do:

• Routine labs
• Routine imaging
Resources

- NCCN guidelines
- MSK Male Sexual & Reproductive Medicine Program: 646-888-6024
- MSK Rehabilitation Center (includes physical therapy for pelvic floor dysfunction): 636-888-1900
- American Urological Association Guidelines (for hematuria)
  http://www.auanet.org/guidelines
Thank you!!

Contact us at: survivorship@mskcc.org