Memorial Sloan Kettering Cancer Center

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

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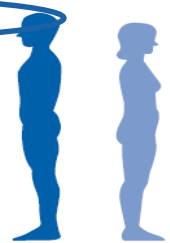
Introduction: Facts and Statistics

Introduction

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

Estimated New Cases

Male			Female		
Prostate	164,690	19%	Breast	266,120	30%
Lung & bronchus	121,680	14%	Lung & bronchus	112,350	13%
Colon & rectum	75,610	9%	Colon & rectum	64,640	7%
Urinary bladder	62,380	7%	Uterine corpus	63,230	7%
Melanoma of the skin	55,150	6%	Thyroid	40,900	5%
Kidney & renal pelvis	42,680	5%	Melanoma of the skin	36,120	4%
Non-Hodgkin lymphoma	41,730	5%	Non-Hodgkin lymphoma	32,950	4%
Oral cavity & pharynx	37,160	4%	Pancreas	26,240	3%
Leukemia	35,030	4%	Leukemia	25,270	3%
Liver & intrahepatic bile duct	30,610	4%	Kidney & renal pelvis	22,660	3%
All sites	**856,370**	**100%**	**All sites**	**878,980**	**100%**



Estimated Deaths

Male			Female		
Lung & bronchus	83,550	26%	Lung & bronchus	70,500	25%
Prostate	29,430	9%	Breast	40,920	14%
Colon & rectum	27,390	8%	Colon & rectum	23,240	8%
Pancreas	23,020	7%	Pancreas	21,310	7%
Liver & intrahepatic bile duct	20,540	6%	Ovary	14,070	5%
Leukemia	14,270	4%	Uterine corpus	11,350	4%
Esophagus	12,850	4%	Leukemia	10,100	4%
Urinary bladder	12,520	4%	Liver & intrahepatic bile duct	9,660	3%
Non-Hodgkin lymphoma	11,510	4%	Non-Hodgkin lymphoma	8,400	3%
Kidney & renal pelvis	10,010	3%	Brain & other nervous system	7,340	3%
All sites	**323,630**	**100%**	**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.

Siegel RL et al, Cancer Statistics 2018, Ca Cancer J Clin 2018; 68:7-30

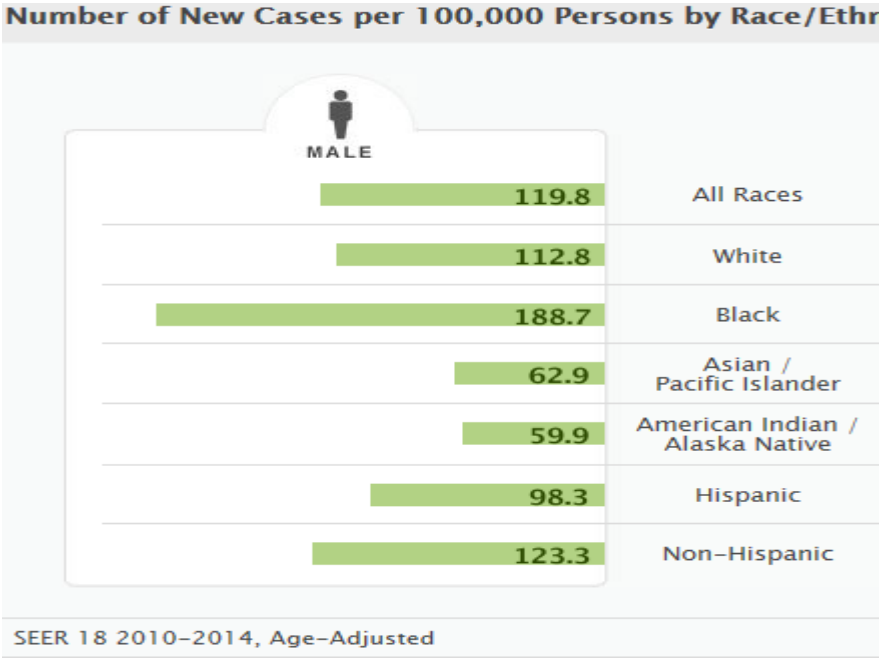
Facts and Stats

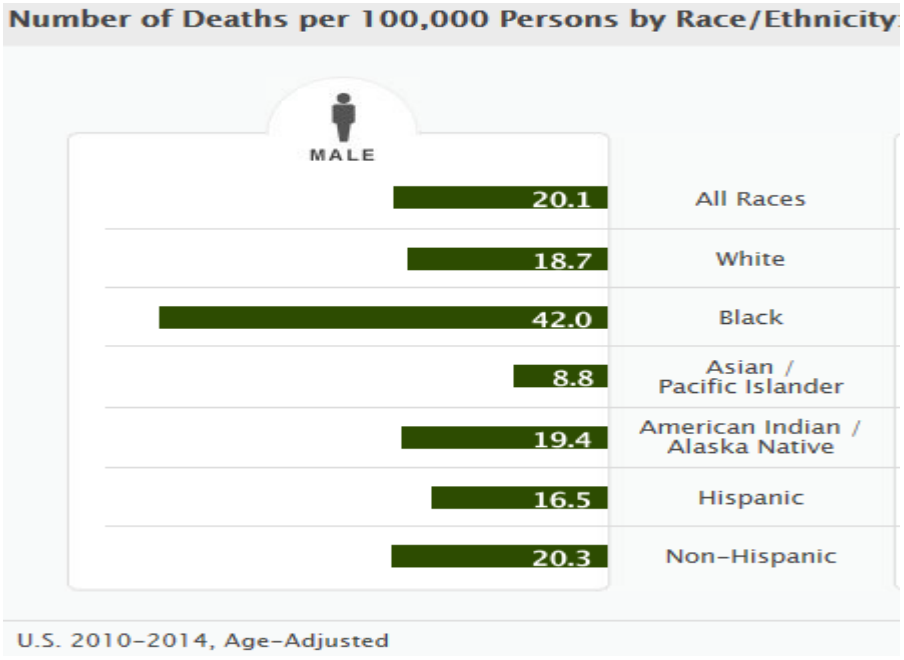
- 91% of prostate cancers are discovered at local or regional stage
  - Five-year survival approaches 100%!
- 5-year survival diagnosed at distant stage is 30%
- 10-year survival rate for **all stages combined** is 98%

Siegel RL et al, Cancer Statistics 2018, Ca Cancer J Clin 2018; 68:7-30

Facts and Stats

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





Siegel RL et al, Cancer Statistics 2018, Ca Cancer J Clin 2018; 68:7-30
NCI Surveillance, Epidemiology, and End Results Program https://seer.cancer.gov/statfacts/html/prost.html

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What kinds of treatment do patients receive?

Treatment of Localized Prostate Cancer

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

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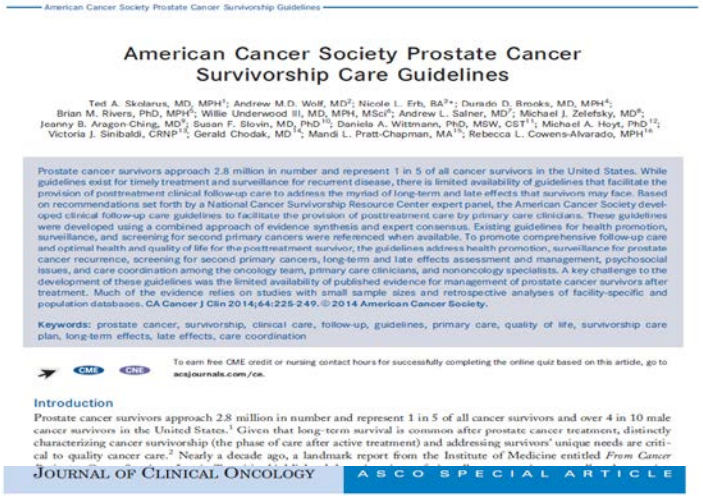
Reference guidelines

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*



American Cancer Society Prostate Cancer Survivorship Care Guidelines

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Prostate cancer survivors approach 2.8 million in number and represent 1 in 5 of all cancer survivors in the United States. While guidelines exist for timely treatment and surveillance for recurrent disease, there is limited availability of guidelines that facilitate the provision of posttreatment clinical follow-up care to address the myriad of long-term and late effects that survivors may face. Based on recommendations set forth by a National Cancer Survivorship Resource Center expert panel, the American Cancer Society developed clinical follow-up care guidelines to facilitate the provision of posttreatment care by primary care clinicians. These guidelines were developed using a combined approach of evidence synthesis and expert consensus. Existing guidelines for health promotion, surveillance, and screening for second primary cancers were referenced when available. To promote comprehensive follow-up care and optimal health and quality of life for the posttreatment survivor, the guidelines address health promotion, surveillance for prostate cancer recurrence, screening for second primary cancers, long-term and late effects assessment and management, psychosocial issues, and care coordination among the oncology team, primary care clinicians, and noncology specialists. A key challenge to the development of these guidelines was the limited availability of published evidence for management of prostate cancer survivors after treatment. Much of the evidence relies on studies with small sample sizes and retrospective analyses of facility-specific and population databases. CA Cancer J Clin 2014;64:225-249. © 2014 American Cancer Society.

Keywords: prostate cancer, survivorship, clinical care, follow-up, guidelines, primary care, quality of life, survivorship care plan, long-term effects, late effects, care coordination

To earn free CME credit or nursing contact hours for successfully completing the online quiz based on this article, go to acsjournals.com/ce.

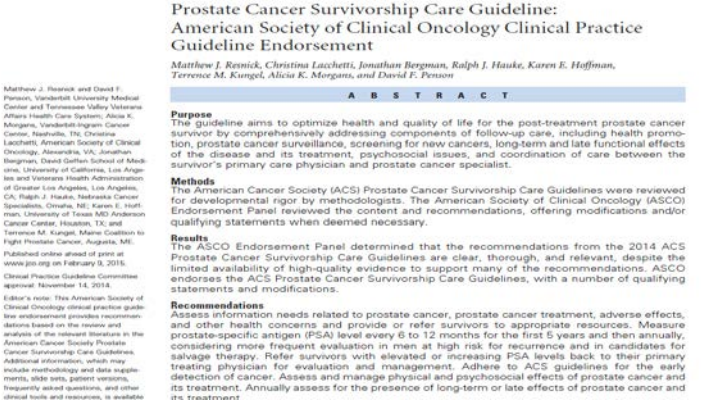
Introduction

Prostate cancer survivors approach 2.8 million in number and represent 1 in 5 of all cancer survivors and over 4 in 10 male cancer survivors in the United States.[1] Given that long-term survival is common after prostate cancer treatment, distinctly characterizing cancer survivorship (the phase of care after active treatment) and addressing survivors' unique needs are critical to quality cancer care.[2] Nearly a decade ago, a landmark report from the Institute of Medicine entitled *From Cancer*

JOURNAL OF CLINICAL ONCOLOGY ASCO SPECIAL ARTICLE

ASCO endorsement of ACS guidelines

(J Clin Oncol 2015)



Prostate Cancer Survivorship Care Guideline: American Society of Clinical Oncology Clinical Practice Guideline Endorsement

Matthew J. Resnick, Christina Lacchetti, Jonathan Bergman, Ralph J. Hauke, Karen E. Hoffman, Terrence M. Kungel, Alicia K. Morgans, and David F. Penson

Purpose
The guideline aims to optimize health and quality of life for the post-treatment prostate cancer survivor by comprehensively addressing components of follow-up care, including health promotion, prostate cancer surveillance, screening for new cancers, long-term and late functional effects of the disease and its treatment, psychosocial issues, and coordination of care between the survivor's primary care physician and prostate cancer specialist.

Methods
The American Cancer Society (ACS) Prostate Cancer Survivorship Care Guidelines were reviewed for developmental rigor by methodologists. The American Society of Clinical Oncology (ASCO) Endorsement Panel reviewed the content and recommendations, offering modifications and/or qualifying statements when deemed necessary.

Results
The ASCO Endorsement Panel determined that the recommendations from the 2014 ACS Prostate Cancer Survivorship Care Guidelines are clear, thorough, and relevant, despite the limited availability of high-quality evidence to support many of the recommendations. ASCO endorses the ACS Prostate Cancer Survivorship Care Guidelines, with a number of qualifying statements and modifications.

Recommendations
Assess information needs related to prostate cancer, prostate cancer treatment, adverse effects, and other health concerns and provide or refer survivors to appropriate resources. Measure prostate-specific antigen (PSA) level every 6 to 12 months for the first 5 years and then annually, considering more frequent evaluation in men at high risk for recurrence and in candidates for salvage therapy. Refer survivors with elevated or increasing PSA levels back to their primary treating physician for evaluation and management. Adhere to ACS guidelines for the early detection of cancer. Assess and manage physical and psychosocial effects of prostate cancer and its treatment. Annually assess for the presence of long-term or late effects of prostate cancer and its treatment.

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Health promotion in the prostate cancer survivor

Health promotion

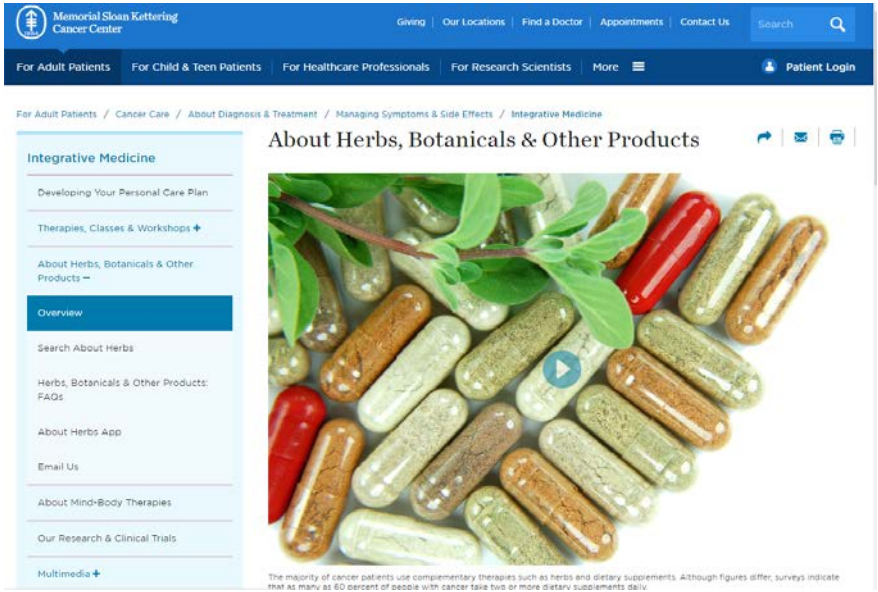
- Obesity: worse health outcomes (prostate cancer-specific mortality and biochemical recurrence)

- 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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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	Refer back if
After radical prostatectomy	PSA undetectable (<0.03 ng/mL within 2 months	PSA becomes detectable
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	PSA doubles* **Note: if PSA hasn't doubled, provide reassurance and monitor annually*

Specialist preferences may vary; when in doubt, reach out!

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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

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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

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Long-term and Late effects of prostate cancer treatment:

Identification and management

Long-Term and Late Effects of Therapy

SURGERY

Urinary

- Incontinence (stress)
- Urgency, frequency, nocturia, dribbling
- Urethral stricture

Sexual

- Erectile dysfunction
- Lack of ejaculation
- Orgasm changes (without erection, associated with incontinence)
- Penile shortening

RADIATION THERAPY

Urinary

- Same as with surgery
- Hematuria

Sexual

- Progressive erectile dysfunction
- Decreased semen volume

Bowel

- Fecal urgency, frequency, incontinence
- Blood in stool
- Rectal inflammation, pain

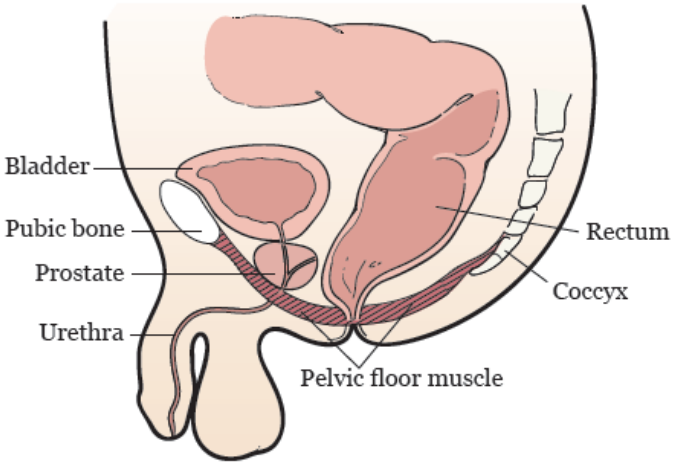
BOTH:EXPECTANT MANAGEMENT

- 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-inflammatories
- 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

https://www.mskcc.org/cancer-care/patient-education/pelvic-floor-muscle-kegel-exercises-men

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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
Casey et al, Asian J Androl. 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

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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
  https://www.nccn.org/professionals/physician_gls/pdf/prostate.pdf
- Kegel exercises for men: https://www.mskcc.org/cancer-care/patient-education/pelvic-floor-muscle-kegel-exercises-men
- 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
- MSK Herbs https://www.mskcc.org/cancer-care/diagnosis-treatment/symptom-management/integrative-medicine/herbs

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Thank you!!

Contact us at: survivorship@mskcc.org