Prostate Cancer Worksheet

1. PSA

Prostate Specific Antigen(PSA) is a protein produced by cells of the prostate gland. PSA is present in the blood and is often elevated in the presence of prostate cancer.

Age adjusted PSA. Prostate specific antigen generally increases with age because the prostate gland gradually enlarges as men grow older. Generally, the larger the prostate the higher the PSA.

Age	Caucasian or Hispanic	African American	Asian
70 to 79	6.5	5.5	5.0
60 to 69	4.5	4.5	4.0
50 to 59	3.5	4.0	3.0
40 to 49	2.5	2.0	2.0

Your PSA:

3. Stage

The *TMN staging system* describes the progression and involvement of cancer. The T is broken down to describe the size of the tumor.

T1 No palpable cancer.
- a. and b. noted at time of bladder outlet surgery
- c. discovered when prostate biopsied for an elevated PSA

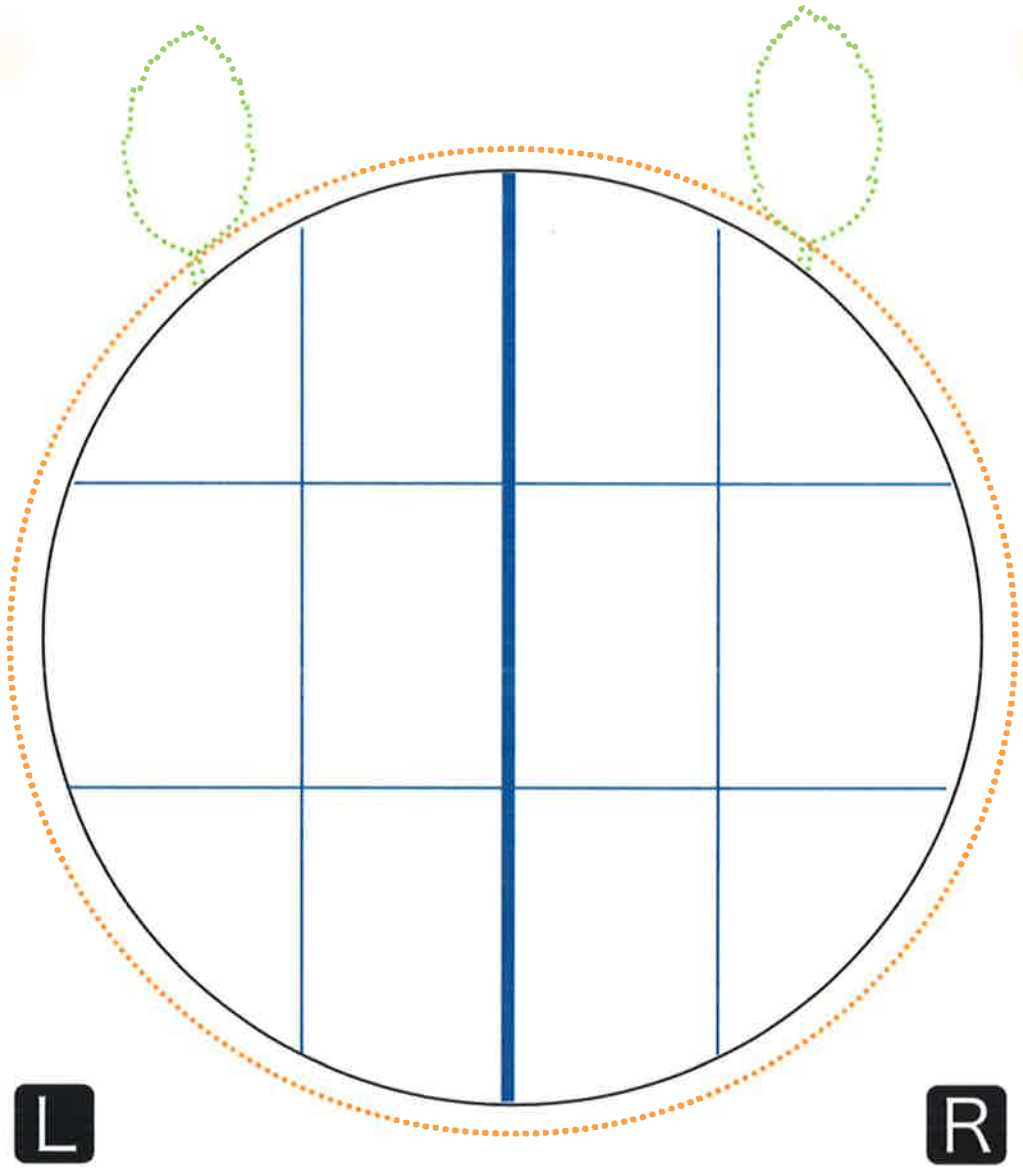
T2 Cancer palpated on prostrate exam.
- a. less than 1/2 of one lobe
- b. more than 1/2 of one lobe
- c. both lobes

T3 Cancer believed to have spread to the outer surface of the prostate or seminal vesicles

T4 Cancer invades nearby structures

Your Stage: ☐

4. Biopsy Results



5. Prostate Algorithm / Chart

Correlates the PSA, Gleason score, clinical stage and percent of positive biopsies to help predict the definitive pathologic stage (determined after surgery).

Results

%	Organ confined
%	Capsular penetration
%	Seminal vesicle involvement
%	Lymph node involvement

6. Treatment Options

1. Active Surveillance

2. Radiation / Proton Therapy

3. Cryoablation

4. Surgery / Robotic

5. Androgen Deprivation

PARTIN TABLES*

Updated nomogram to predict pathologic state of prostate cancer based on John Hopkins RP patients from 2006 to 2011

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TABLE I. Clinical Stage T1c (nonpalpable, PSA elevated) (n = 4380)						
PSA Range (ng/mL)	Pathologic Stage	Biopsy Gleason Score				
		6	3+4	4+3	8	9-10
0–2.5	OC (n = 289)	93 (91-95)	83 (78-87)	80 (74-85)	79 (72-85)	74 (61-83)
	ECE (n = 21)	7 (5-8)	15 (11-20)	17 (12-22)	18 (12-24)	20 (12-29)
	SV (+) (n = 4)	0 (0-1)	2 (0-3)	3 (1-6)	3 (1-6)	5 (1-12)
	LN (+) (n = 0)	0 (0-0)	0 (0-1)	0 (0-2)	0 (0-2)	2 (0-6)
2.6–4.0	OC (n = 751)	87 (85-89)	71 (67-75	66 (60-71)	65 (57-72)	56 (44-67)
	ECE (n = 133)	12 (10-14)	25 (22-29)	27 (22-32)	28 (22-34)	29 (20-40)
	SV (+) (n = 10)	0 (0-1)	2 (1-4)	4 (2-7)	4 (2-8)	7 (3-12)
	LN (+) (n = 4)	0 (0-0)	1 (0-2)	3 (1-5)	3 (1-6)	8 (3-16)
4.1–6.0	OC (n = 1439)	84 (83-86)	66 (63-69)	60 (55-65)	59 (51-66)	50 (38-60)
	ECE (n = 371)	15 (13-16)	29 (26-33)	31 (26-36)	32 (25-38)	32 (23-42)
	SV (+) (n = 37)	1 (0-1)	4 (2-5)	6 (4-9)	6 (4-10)	10 (5-16)
	LN (+) (n = 11)	0(0-0)	1 (0-2)	3 (2-5)	3 (1-6)	8 (4-15)
6.1–10.0	OC (n = 191)	80 (78-82)	59 (55-63)	53 (47-58)	52 (44-59)	42 (31-52)
	ECE (n = 226)	18 (16-20)	34 (30-38)	35 (30-40	36 (29-43)	36 (26-46)
	SV (+) (n = 36)	1 (1-2)	6 (4-8)	9 (6-13)	9 (5-24)	14 (8-21)
	LN (+) (n = 8)	0 (0-0)	1 (0-2)	3 (1-5)	3 (1-6)	8 (4-14)
>10.0	OC (n = 191)	69 (64-74)	42 (36-48)	34 (28-40)	33 (26-40)	23 (15-32)
	ECE (n = 121)	27 (22-31)	42 (36-47)	28 (32-45)	39 (31-47)	33 (24-44)
	SV (+) (n = 28)	3 (2-5)	13 (9-18)	20 (14-27)	20 (12-28)	25 (15-36)
	LN (+) (n = 14)	0 (0-1)	3 (1-5)	8 (4-14)	8 (3-14)	18 (9-30)

KEY: **PSA** = Prostate-specific antigen; **OC** = Organ confined; **EPE** = Extraprostatic extension; **SV (+)** = Seminal vesicle extension; **LN (+)** = Lymph node involvement

TABLE II. Clinical Stage T2a (palpable < ½ of one lobe) (n = 897)						
PSA Range (ng/mL)	Pathologic Stage	Biopsy Gleason Score				
		6	3+4	4+3	8	9-10
0–2.5	OC (n = 140)	90 (87-92)	76 (70-81)	72 (65-79)	71 (62-79)	65 (51-76)
	ECE (n = 23)	10 (7-13)	22 (17-28	24 (17-30)	24 (18-33)	27 (18-39)
	SV (+) (n = 1)	1 (1-1)	3 (1-5)	5 (2-8)	5 (2-9)	7 (3-14)
	LN (+) (n = 1)	0 (0-0)	1 (0-3)	4 (1-8)	4 (1-10)	11 (4-23)
2.6–4.0	OC (n = 139)	82 (78-84)	61 (56-66)	56 (48-62)	54 (46-63)	45 (33-56)
	ECE (n = 52)	18 (15-21)	34 (29-39)	35 (29-42)	36 (29-44)	36 (26-49)
	SV (+) (n = 5)	1 (0-1)	3 (1-5)	5 (2-8)	6 (2-9)	7 (3-14)
	LN (+) (n = 5)	0 (0-0)	1 (0-3)	4 (1-8)	4 (1-10)	11 (4-23)
4.1–6.0	OC (n = 183)	78 (74-81)	56 (51-60)	49 (43-56)	48 (40-56)	39 (28-50)
	ECE (n = 91)	21 (18-24)	38 (34-43)	39 (33-46)	40 (32-48)	39 (28-50)
	SV (+) (n = 8)	1 (1-1)	4 (3-6)	7 (4-10)	7 (4-11)	10 (5-16)
	LN (+) (n = 3)	0 (0-0)	2 (1-3)	4 (2-7)	4 (2-8)	11 (4-21)
6.1–10.0	OC (n = 104)	73 (68-77)	48 (43-54)	42 (36-49)	41 (33-50)	32 (23-43)
	ECE (n = 72)	26 (22-30)	44 (39-49)	44 (37-50)	45 (36-52)	43 (31-54)
	SV (+) (n = 10)	1 (1-2)	6 (4-9)	10 (6-15)	10 (5-16	14 (7-22)
	LN (+) (n = 4)	—	0 (0-1)	2 (1-4)	4 (2-8)	4 (1-8)
>10.0	OC (n = 22)	60 (53-66)	32 (26-39)	25 (20-31)	24 (18-32)	16 (10-24)
	ECE (n = 22)	36 (30-42)	50 (43-56)	44 (36-53)	45 (35-55)	37 (25-49)
	SV (+) (n = 10)	4 (2-6)	14 (8-20)	20 (12-29)	20 (11-30)	24 (13-38)
	LN (+) (n = 2)	1 (0-2)	4 (2-7)	10 (4-18)	10 (4-20)	22 (10-37)

KEY: **PSA** = Prostate-specific antigen; **OC** = Organ confined; **EPE** = Extraprostatic extension;**SV (+)** = Seminal vesicle extension; **LN (+)** = Lymph node involvement

TABLE III. Clinical Stage T2b (palpable ≥ ½ of lobe) or T2c (palpable both lobes) (n = 352)						
PSA Range (ng/mL)	Pathologic Stage	Biopsy Gleason Score				
		6	3+4	4+3	9	9-10
0–2.5	OC (n = 26)	**82 (76-87)**	**61 (52-70)**	**55 (45-66)**	**54 (44-66)**	**45 (32-60)**
	ECE (n = 13)	**17 (12-23)**	**33 (25-42)**	**34 (25-44)**	**35 (24-46)**	**35 (23-48)**
	SV (+) (n = 0)	1 (0-2)	5 (1-10)	8 (2-16)	8 (2-16)	13 (3-24)
	LN (+) (n = 0)	0 (0-0)	1 (0-3)	2 (0-9)	3 (0-9)	7 (0-21)
2.6–4.0	OC (n = 27)	**70 (63-75)**	**44 (37-51)**	**36 (29-44)**	**35 (27-44)**	**24 (16-35)**
	ECE (n = 30)	**28 (22-35)**	**46 (39-53)**	**43 (35-51)**	**44 (34-53)**	**37 (26-51)**
	SV (+) (n = 3)	2 (1-3)	6 (3-10)	10 (5-16)	10 (5-17)	13 (6-23)
	LN (+) (n = 2)	1 (0-2)	4 (2-8)	11 (5-20)	11 (4-21)	25 (12-42)
4.1–6.0	OC (n = 52)	**64 (58-70)**	**38 (32-44)**	**30 (24-37)**	**30 (22-37)**	**20 (13-29)**
	ECE (n = 45)	**32 (27-39)**	**49 (42-56)**	**45 (38-52)**	**46 (37-55)**	**38 (26-51)**
	SV (+) (n = 14)	2 (1-4)	9 (6-13)	14 (9-20)	13 (8-21)	17 (9-28)
	LN (+) (n = 12)	1 (0-2)	4 (2-8)	11 (5-17)	11 (5-19)	24 (12-40)
6.1–10.0	OC (n = 25)	**58 (50-65)**	**31 (25-37**	**24 (19-31**	**24 (18-31)**	**16 (10-23)**
	ECE (n = 36)	**38 (32-45)**	**52 (46-59)**	**47 (40-55**	**48 (39-57)**	**40 (28-52)**
	SV (+) (n = 7)	4 (2-6)	12 (8-18)	19 (12-25)	18 (10-26)	23 (12-34)
	LN (+) (n = 5)	1 (0-2)	4 (2-7)	10 (5-16)	10 (5-18)	22 (10-35)
>10.0	OC (n = 8)	**42 (34-50)**	**17 (13-23)**	**12 (8-16)**	**11 (8-16)**	**6 (4-11)**
	ECE (n = 21)	**47 (39-55)**	**50 (41-59)**	**39 (30-49)**	**40 (28-51)**	**27 (18-40)**
	SV (+) (n = 18)	9 (5-14)	23 (15-33)	30 (20-41)	29 (18-42)	30 (17-45)
	LN (+) (n = 8)	**2 (0-4)**	9 (4-16)	20 (10-31)	20 (9-32)	36 (20-53)

KEY: PSA = prostate-specific antigen; **OC** = organ confined; **EPE** = Extraprostatic extension; **SV (+)** = Seminal vesicle extension' **LN (+)** = Lymph node involvement

Values are percent probability (95% confidence interval) of a given pathologic stage.

* The "Partin tables" were originally developed by urologists Alan W. Partin, M.D., Ph.D and Patrick C. Walsh, M.D. of the James Buchanan Brady Urological Institute at John Hopkins Medicine. These tables can help you and your physician determine the best course of treatment for prostate cancer.

PRE-OPERATIVE CLASS

Any man faced with the prospect of treatment for prostate cancer faces the possible risk of erectile dysfunction and incontinence. Typically, men have had few options to improve their chances of recovering these vital functions other than the "tincture of time." We believe we can do better and want to offer you a more proactive approach using a combination of Penile Rehabilitation and Biofeedback treatments.

Erectile Dysfunction (ED) is the inability to achieve or maintain a satisfactory erection. There are several reasons why you may experience erectile dysfunction both before and after treatment for your prostate cancer. Those include heart disease, diabetes, high blood pressure, medications, and low testosterone. Any prostate cancer treatment (Radical Prostatectomy, daVinci Prostatectomy, Cryotherapy or Radiation) can injure the nerves that create erections because those nerves run along the outside edges of the prostate itself. Penile Rehabilitation is the attempt to help those nerves recover or re-grow while maintaining the health of the penile tissue. Several techniques are currently being investigated. We have chosen to use a combination of VED (penile pump) and medical treatment (Viagra, Levitra, Cialis) to encourage the return of erectile function. These options are safe and allow you both to be sexually active until the return of, as well as encouraging the return of, your normal erections.

Incontinence is the inability to maintain control of urine, or, more simply, leaking. Most all incontinence gets better or can be treated. Most men will have some instruction to exercise the urinary sphincter muscles to strengthen them. Unfortunately, even the best verbal instruction doesn't guarantee that a man is doing his exercises correctly. Biofeedback is a one-on-one session with a nurse who can teach you how to use the correct muscles.

Want to learn more? We are now offering bi-monthly classes for men undergoing prostate cancer treatment. These classes are offered at night for your convenience. Feel free to bring your spouse or someone who will be helping with your care after your procedure.

How can you schedule your Penile Rehabilitation, Biofeedback, or attend a class to learn more about these new techniques? Call 651-999-7098 or ask your Minnesota Urology physician for further details.

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SIMS Class Introductory Letter

Penile Rehabilitation

The Surgical Impotence Management Strategy (SIMS) was coined and developed by Minnesota Urology. Penile rehabilitation is specifically designed to help the nerves responsible for erections recover after surgery while maintaining the health of the penile tissue. Erectile Dysfunction (ED) is the inability to achieve or maintain an erection satisfactory for sexual activity. There are a number of reasons why men may experience erectile dysfunction both before and after treatment for your prostate cancer. Those include heart disease, diabetes, high blood pressure, medications, and low testosterone. Any prostate cancer treatment (Radical Prostatectomy, da Vinci Prostatectomy, Cryotherapy, or Radiation) can destroy or injure the nerves that create erections because those nerves run along the outside edges of the prostate itself.

The Surgical Impotence Management Strategy (SIMS) penile rehabilitation protocol is specifically designed to help the nerves for erection recover following surgical removal of the prostate, while maintaining the health of the penile tissue. Several modalities are currently being utilized in combination including but not limited to (Viagra®, Levitra®, Cialis®, MUSE®, and injection therapy) as well as a Vacuum Erection Device (VED) or penile pump. Each of these modalities is utilized in a stepwise fashion to encourage the return of your erectile function. These options are safe, and in many cases, allow you to be sexually active while working towards the recovery of your normal erections.

Urinary Continence

Pelvic floor exercises and a specific diet to assist in regaining urinary continence will be discussed at the pre-operative class. We encourage patients to practice these tips before surgery in order to enhance post-operative results. Most patients will regain complete urinary control shortly after removal of the Foley catheter. Few patients will require additional training of the pelvic floor muscles using biofeedback. At a biofeedback appointment, steps are taken to help identify the muscles responsible for urinary continence and the proper exercise techniques necessary to strength these muscles. Any further treatment is performed within Minnesota Urology.

The pre-operative class is given once a month by Minnesota Urology. Please contact us for any further questions regarding time and location.

NK 2015, SH 2018

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Prostate Cancer Support Groups

Have you recently been diagnosed or are you a survivor of prostate cancer? If so, join others like yourself, for an evening of candid discussion and receive helpful information regarding this serious issue. Most meetings begin with a health care speaker followed by a support group discussion.

Here are some of the education and support groups in the metro area. Please call to confirm the meeting date, time and location.

HealthEast St. John's Hospital
1575 Beam Ave. 2nd Floor Nygaard Conf. Rm
Maplewood, MN
651-232-7086

When: Second Thursday of each month
Time: 5:00 to 6:30 pm

North Memorial Medical Center
Vance Demong Classroom
Robbinsdale, MN
763-581-2804

When: Fourth Wednesday of each month
Time: 5:30 to 7:00 pm

Mercy Specialty Center
11850 Blackfoot St. NW Ste 130
Coon Rapids, MN
763-236-6060

When: Fourth Tuesday of each month
Time: 7:00 to 8:30 pm

United Hospital/ John Nasseff Medical Center
St. Luke's Room-Lower Level
255 North Smith Avenue, St. Paul, MN
651-241-8328

When: First Thursday of the Month
Time: 7:00-8:30 p.m.