#### PROST-QA APPENDIX 11.3: SSS-Ca

#### PATIENT SATISFACTION INSTRUMENT

Indicate the answer that best describes your feeling about each aspect of the services you have received. We are interested in your *overall experience during the last year* with care or therapy that you have received related to your cancer therapy or its side effects. By "practitioner" we mean the one or more doctors, clinicians, etc., who have worked with you in your cancer-related care.

What is your overall feeling about the				
--	--	--	--	--

- 1. Effect of health care services in helping you deal with your cancer and maintain your well being?
- 2. Professional knowledge and competence of your main cancer practitioner(s)?
- 3. Ability of your main cancer practitioner(s) to listen and respond to your concerns or problems?
- 4. Personal manner of the main cancer practitioner(s) seen?
- 5. Waiting time between asking to be seen or treated and the appointment given?\*
- 6. Waiting time when you come for an appointment?\*
- 7. Availability of appointment times that fit your schedule?\*
- 8. Effect of cancer treatment in preventing cancer progression or recurrence?
- 9. How well your confidentiality and rights as an individual have been protected?
- 10. Quality of cancer care you have received?
- 11. Availability of information on how to get the most out of the cancer care and related services?\*
- 12. Explanations of specific procedures and treatment approaches used?\*
- 13. Effect of services in helping relieve symptoms or reduce problems?
- 14. Thoroughness of the main cancer practitioner(s) you have seen?
- 15. Helpfulness of the information provided about your cancer and its treatment?\*
- 16. In an overall general sense, how satisfied are you with the cancer treatment you have received?

CATI Response options for each of the above items are as follows):						
Completely	Very	Somewhat	Mixed	Somewhat	Very	Completely
Satisfied	Satisfied	Satisfied		Unsatisfied	Unsatisfied	Unsatisfied

<sup>\*</sup>Foot Note: "SSS-Ca and SSS-Ca-Spouse/Partner items 5,6,7,11,12, and 15 (Waiting and Information modules) will not be administered at 12 months and there after, as excessive recall would be required."

#### PROST-QA APPENDIX 11.4: SSS-Ca Spouse/Partner

#### PATIENT SATISFACTION INSTRUMENT

Indicate the answer that best describes your feeling about each aspect of the services you have received. We are interested in your *overall experience during the last year* with care or therapy that you have received related to your cancer therapy or its side effects. By "practitioner" we mean the one or more doctors, clinicians, etc., who have worked with you in your cancer-related care.

W	hat is	vour	overall	feeling	about	the.	

- 1. Effect of health care services in helping your spouse or partner deal with their cancer and maintain well being?
- 2. Professional knowledge and competence of your spouse or partner's main cancer practitioner(s)?
- 3. Ability of your spouse or partner's main cancer practitioner(s) to listen and respond to your concerns or problems?
- 4. Personal manner of the main cancer practitioner(s) seen?
- 5. Waiting time between asking to be seen or treated and the appointment given?\*
- 6. Waiting time when your spouse or partner comes for an appointment?\*
- 7. Availability of appointment times that fit your and your partner or spouse's schedule?\*
- 8. Effect of cancer treatment in preventing cancer progression or recurrence?
- 9. How well your confidentiality and rights as a couple have been protected?
- 10. Quality of cancer care your spouse or partner received?
- 11. Availability of information on how to get the most out of the cancer care and related services?\*
- 12. Explanations of specific procedures and treatment approaches used?\*
- 13. Effect of services in helping relieve your spouse or partner's symptoms or reduce problems?\*
- 14. Thoroughness of the main cancer practitioner(s) you have seen?
- 15. Helpfulness of the information provided about your spouse or partner's cancer and its treatment?
- 16. In an overall general sense, how satisfied are you with the cancer treatment your spouse or partner received?

CATI Response options for each of the above items are as follows):						
	<u> </u>					
Completely Satisfied	Very Satisfied	Somewhat Satisfied	Mixed	Somewhat Unsatisfied	Very Unsatisfied	Completely Unsatisfied

<sup>\*</sup>Foot Note: "SSS-Ca and SSS-Ca-Spouse/Partner items 5,6,7,11,12, and 15 (Waiting andInformation modules) will not be administered at 12 months and there after, as excessive recall would be required."

#### PROST-QA APPENDIX 11.5: EPIC Short Form for Partners or Spouses

This questionnaire is designed to help us understand how much the following symptoms have been a problem to the spouses and/or partners of men with prostate cancer.

1.	How much has your husband's or partner's <b>urinary incontinence</b> , such as urinary leakage or loss of urinary
	control been a problem for you during the last four weeks?

No problem	1	
Very small problem	2	
Small problem	3	(circle one number)
Moderate problem	4	
Big problem	5	

2. How much has your husband's or partner's **urinary irritation or blockage**, such as frequent urination, pain or burning with urination, urinary urgency, waking up to urinate, blood in the urine, or related difficulties in passing his urine, been a problem for you <u>during the last four weeks</u>?

No problem	1	
Very small problem	2	
Small problem	3	(circle one number)
Moderate problem	4	
Big problem	5	

3. How much has your husband's or partner's **overall urinary function**, such as urinary leakage, incontinence, frequent urination, urinary urgency, urinary burning, urinary bleeding, waking up to urinate, or other urinary difficulties been a problem for you <u>during the last four weeks</u>?

No problem	1	
Very small problem	2	
Small problem	3	(circle one number)
Moderate problem	4	
Big problem	5	

4. How much has your husband's or partner's **bowel habits**, such as rectal urgency, frequent bowel movements, leakage of stool, bloody stool, or painful bowel movements, been a problem for you <u>during the last four weeks</u>?

No problem	1	
Very small problem	2	
Small problem	3	(circle one number)
Moderate problem	4	
Big problem	5	

5. How much has your husband's or partner's **sexual function** such as his degree of sexual desire, the frequency and quality of his erections, or the level of sexual activity, been a problem for you <u>during the last 4 weeks</u>?

No problem	1	
Very small problem	2	
Small problem	3	(circle one number)
Moderate problem	4	
Big problem	5	

6. How much has your husband's or partner's **hormone function and vitality**, such as lack of energy, hot flashes, breast tenderness, weight gain, or mood changes, been a problem for you <u>during the last 4 weeks</u>?

No problem	1	
Very small problem	2	
Small problem	3	(circle one number)

Moderate problem 4 Big problem 5

#### **Caregiver Burden Scale**

Caregiver's name:	Datas
t arediver's name.	Date:

The following questions reflect how people sometimes feel when they are taking care of another person. After each question, circle how often you feel that way: never, rarely, sometimes, frequently, or nearly always. There are no right or wrong answers.

		Never	Rarely	Sometimes	Frequently	Nearly always
1.	Do you feel that your relative asks for more help than he or she needs?	0	1	2	3	4
2.	Do you feel that because of the time you spend with your relative, you do not have enough time for yourself?	0	1	2	3	4
3.	Do you feel stressed between caring for your relative and trying to meet other responsibilities for your family or work?	0	1	2	3	4
4.	Do you feel embarrassed over your relative's behavior?	0	1	2	3	4
5.	Do you feel angry when you are around your relative?	0	1	2	3	4
6.	Do you feel that your relative currently affects your relationship with other family members or friends in a negative way?	0	1	2	3	4
7.	Are you afraid about what the future holds for your relative?	0	1	2	3	4
8.	Do you feel your relative is dependent on you?	0	1	2	3	4
9.	Do you feel strained when you are around your relative?	0	1	2	3	4
10	. Do you feel your health has suffered because of your involvement with your relative?	0	1	2	3	4
11	. Do you feel that you do not have as much privacy as you would like, because of your relative?	0	1	2	3	4
12	. Do you feel that your social life has suffered because you are caring for your relative?	0	1	2	3	4
13	. Do you feel uncomfortable about having friends over, because of your relative?	0	1	2	3	4
14	. Do you feel that your relative seems to expect you to take care of him or her, as if you were the only one he or she could depend on?	0	1	2 2	3	4
15	. Do you feel that you do not have enough money to care for your relative, in addition to the rest of your expenses?	0	1	2	3	4
16	: Do you feel that you will be unable to take care of your relative much longer?	0	1	2	3	4
17	. Do you feel you have lost control of your life since your relative's illness?	0	1	2	3	4
18	. Do you wish you could just leave the care of your relative to someone else?	0	1	2	3	4
19	. Do you feel uncertain about what to do about your relative?	0	1	2	3	4
20	. Do you feel you should be doing more for your relative?	0	1	2	3	4
21	. Do you feel you could do a better job in caring for your relative?	0	1	2	3	4
22	. Overall, how burdened do you feel in caring for your relative?	0	1	2	3	4
					Total score:	

Total score: \_\_\_\_\_

SCORING KEY:

0 to 20 = little or no burden; 21 to 40 = mild to moderate burden; 41 to 60 = moderate to severe burden; 61 to 88 = severe burden.

FIGURE 4. Caregiver Burden Scale. This self-administered 22-item questionnaire assesses the "experience of burden."

Adapted with permission from Zarit SH, Reever KE, Bach-Peterson J. Relatives of the impaired elderly: correlates of feelings of burden. Gerontologist 1980;20:649-55.

# **Estimating Prognosis for Dialysis Patients** programmed by Stephen Z. Fadem, M.D., FACP, FASN yrs Serum Albumin g/dL Since the lower limits of albumin for lab are < 3.5 g/dL enter lower limits of albumin (LLA) below One Point Myocardial infarction (history, not ECG changes only) Congestive heart failure Peripheral disease (includes aortic aneurysm >= 6 cm Cerebrovascular disease: CVA with mild or no residua or TIA Dementia Chronic pulmonary disease Connective tissue disease Peptic ulcer disease Mild liver disease (without portal hypertension, inlcudes chronic hepatitis) Diabetes without end-organ damage (excludes diet-controlled alone) Two Points Hemiplegia Moderate or severe renal disease Diabetes with end-organ damage (retinopathy, neuropathy, nephropathy, or brittle diabetes) Tumor without metastasis (exclude if > 5 y from diagnosis) Leukemia(acute or chronic) Lymphoma Three Points Moderate or severe liver disease Six Points Metastatic solid tumor AIDS (not just HIV positive)

Charlson Comorbidity Scoring System (http://touchcalc.com/calculators/cci\_js)

Charlson Comorbidity Index (CCI) Score: 0 Age factored in: NaN. Data not available if CCI less than 2.

#### **COST – FACIT (Version 1)**

Below is a list of statements that other people with your illness have said are important. Please circle or mark one number per line to indicate your response as it applies to the <u>past 7 days</u>.

		Not at all	A little bit	Some- what	Quite a bit	Very much
FT	I know that I have enough money in savings, retirement, or assets to cover the costs of my treatment	0	1	2	3	4
FT2	My out-of-pocket medical expenses are more than I thought they would be	0	1	2	3	4
FT3	I worry about the financial problems I will have in the future as a result of my illness or treatment	0	1	2	3	4
FT <sup>2</sup>	I feel I have no choice about the amount of money I spend on care	0	1	2	3	4
FT5	I am frustrated that I cannot work or contribute as much as I usually do	0	1	2	3	4
FT6	I am satisfied with my current financial situation	0	1	2	3	4
FT	I am able to meet my monthly expenses	0	1	2	3	4
FT8	I feel financially stressed	0	1	2	3	4
FT9	I am concerned about keeping my job and income, including work at home	0	1	2	3	4
FT1	My cancer or treatment has reduced my satisfaction with my present financial situation	0	1	2	3	4
FT1	I feel in control of my financial situation	0	1	2	3	4

ID#	Day	01	Day	<i>16</i>	Day 30

#### CAREGIVER QUALITY OF LIFE- CANCER

Below is a list of statements that other people caring for loved ones with cancer have said are important. By circling one number per line, please indicate how true each statement has been for you <u>during the past 7 days</u>.

	0 1	= =	Not at all A little bit 4	=	2 3 Very n	= = much		ewhat e a bit		
During 1.	the past 7 days It bothers me t		laily routine is a	altered.		0	1	2	3	4
2.	My sleep is le	ss restful				0	1	2	3	4
3.	My daily life i	s impose	ed upon.			0	1	2	3	4
<mark>4</mark> .	I am satisfied	with my	sex life.			0	1	2	3	4
5.	It is a challeng	ge to mai	ntain my outsid	e interests		0	1	2	3	4
6.	I am under a f	inancial	strain.			0	1	2	3	4
7.	I am concerne	d about o	our insurance co	overage.		0	1	2	3	4
8.	My economic 4	future is	uncertain.				0	1	2	3
9.	I fear my love	d one wi	ll die.			0	1	2	3	4
10.	I have more of my loved one's	_	ve outlook on li	fe since		0	1	2	3	4
11.	My level of str	ress and	worries has inci	eased.		0	1	2	3	4
12.	My sense of sp	pirituality	y has increased.			0	1	2	3	4
13.	It bothers me,	limiting	my focus to day	y-to-day.		0	1	2	3	4
14.	I feel sad.					0	1	2	3	4
15.	I feel under increased mental strain.						1	2	3	4
<mark>16</mark> .	I get support f	rom my	friends and neig	ghbors.		0	1	2	3	4
17.	I feel guilty.					0	1	2	3	4
18.	I feel frustrate	d.			0	1	2	3	4	

	0 = Not at all 1 = A little bit 4	=	2 3 Very m	= = nuch	Somew Quite a		(OVE	<b>R</b> ⇒)
19.	I feel nervous.			0	1	2	3	4
20.	I worry about the impact my loved of has had on my children or other fam		S.	0	1	2	3	4
21.	I have difficulty dealing with my lochanging eating habits.	ved one's		0	1	2	3	4
<mark>22</mark> .	I have developed a closer relationsh loved one.	ip with my		0	1	2	3	4
23.	I feel adequately informed about my illness.	loved one's		0	1	2	3	4
24.	It bothers me that I need to be available chauffeur my loved one to appoint			0	1	2	3	4
25.	I fear the adverse effects of treatment loved one.	nt on my		0	1	2	3	4
26.	The responsibility I have for my lov care at home is overwhelming.	ed one's		0	1	2	3	4
<mark>27.</mark>	I am glad that my focus is on getting loved one well.	g my		0	1	2	3	4
<mark>28</mark> .	Family communication has increase	d.		0	1	2	3	4
29.	It bothers me that my priorities have	changed.		0	1	2	3	4
30.	The need to protect my loved one be	others me.		0	1	2	3	4
31.	It upsets me to see my loved one de	teriorate.		0	1	2	3	4
32.	The need to manage my loved one's overwhelming.	pain is		0	1	2	3	4
33.	I am discouraged about the future.			0	1	2	3	4
34.	I am satisfied with the support I get family.	from my		0	1	2	3	4
35.	It bothers me that other family mem not shown interest in taking care of		e.	0	1	2	3	4

# <u>EPIC-26</u> The <u>Expanded Prostate Cancer Index Composite</u>

#### **Short Form**

This questionnaire is designed to measure Quality of Life issues in patients with Prostate cancer. To help us get the most accurate measurement, it is important that you answer all questions honestly and completely.

Remember, as with all medical records, information contained within this survey will remain strictly confidential.

Today's Date (please enter date when survey	completed):	Month	_Day	_Year
Name (optional):				
Date of Birth (optional): Month	_Day	Year		

1.	Ove	r the <b>past 4 weeks</b> , how often h	nave you le	eaked urine?				
		More than once a day		1				
		About once a day		2				
		More than once a week		3 (Circl	e one numb	er)		23/
		About once a week		4				
		Rarely or never		5				
2.	Whic	h of the following best describes	s your urin	ary control du	uring the las	st 4 weeks?		
		No urinary control whatsoe	ver		1			
		Frequent dribbling			2	(Circle one n	umber)	26/
		Occasional dribbling			3			
		Total control			4			
3.		many pads or adult diapers <u>per</u> ing the last 4 weeks?	day did y	ou usually use	e to control l	eakage		
		None			0			
		1 pad per day			1			
		2 pads per day			2	(Circle one n	umber)	27/
		3 or more pads per day			3			
4.	How	big a problem, if any, has each	of the follo	owing been fo	r you <b>during</b>	the last 4 wee	eks?	
		Circle one number on each line)		•				
	a.	Dripping or leaking urine	No <u>Problem</u> 0	Very Small Problem	Small <u>Problem</u> 2	Moderate <u>Problem</u> 3	Big <u>Problem</u> 4	28/
		Pain or burning on urination		1	2	3	4	29/
		Bleeding with urination		1	2	3	4	30/
	c. d.	Weak urine stream	. 0	ı	2	3	4	30/
	u.	or incomplete emptying	0	1	2	3	4	31/
	e.	Need to urinate frequently duri			2	3	7	31/
	C.	the day	-	1	2	3	4	33/
			•	·	_	·	·	
5.	Overa	all, how big a problem has your	urinary fui	nction been fo	or you <b>durin</b>	g the last 4 we	eks?	
		No problem		1		-		
		Very small problem		2				
		Small problem			(Circle one	e number)		34/
		Moderate problem			-	•		
		Big problem		5				

			5	•	one number of	•	
		No <u>Problem</u>	Very Small <u>Problem</u>	Small <u>Problem</u>	Moderate <u>Problem</u>	Big <u>Problem</u>	
a.	Urgency to have						
	a bowel movement	0	1	2	3	4	
b.	Increased frequency of						
	bowel movements	0	1	2	3	4	
C.	Losing control of your stools	0	1	2	3	4	
d.	Bloody stools	0	1	2	3	4	
e.	Abdominal/ Pelvic/Rectal pain	0	1	2	3	4	
Over	rall, how big a problem have your	bowel hat	oits been for v	ou <b>durina tl</b>	ne last 4 week	( <b>s</b> ?	
	No problem		•	<b>J</b>			
	Very small problem	2	)				
	Small problem	3		(Circle one	number)		
	Moderate problem	4					
	Big problem	5					
How	v would you rate each of the follow	ing <b>durin</b>	ig the last 4 v	•	cle one numbe	r on each line)	)
1100	v would you rate each of the follow	ving <b>durin</b>	ig the last 4 v	Very Poor to		r on each line) Very Good Good	)
	v would you rate each of the follow  a. Your ability to have an erectic			Very Poor to None F		Very	)
		n?		Very Poor to None F	<u>Poor Fair G</u>	Very Good Good	)
ļ	Your ability to have an erection	on? climax)?		Very Poor to None F	<u>Poor Fair G</u> 2 3 2 3	Very Good Good 4 5 4 5	)
l How	a. Your ability to have an erection b. Your ability to reach orgasm (	n? climax)? ALITY of	your erections	Very Poor to None F  1 1 s during the	Poor Fair G 2 3 2 3 e last 4 weeks	Very Good Good 4 5 4 5	)
l How	<ul><li>a. Your ability to have an erection</li><li>b. Your ability to reach orgasm (would you describe the usual QU</li></ul>	on?climax)?	your erections	Very Poor to None F  1 1 s during the	Poor <u>Fair</u> <u>G</u> 2 3 2 3 2 last 4 weeks	Very Good Good 4 5 4 5	
How 	a. Your ability to have an erection b. Your ability to reach orgasm ( would you describe the usual QU None at all	on?climax)? ALITY of	your erections	Very Poor to None F  1 1 s during the	Poor Fair G 2 3 2 3 2 last 4 weeks 1	Very Good Good 4 5 4 5	
 How   	a. Your ability to have an erection b. Your ability to reach orgasm ( of would you describe the usual QU None at all	on?climax)? ALITY oftivity	your erections	Very Poor to None  1 1 s during the	Poor Fair G 2 3 2 3 Plast 4 weeks 1 2 3 (Circle of	Very Good Good 4 5 4 5	)
How     	a. Your ability to have an erection b. Your ability to reach orgasm (would you describe the usual QU None at all	climax)? ALITY of ctivity	your erections	Very Poor to None F  1 1 s during the	Poor Fair G 2 3 2 3 2 last 4 weeks 1 2 3 (Circle of	Very Good 4 5 4 5 ?	)
   How           How	a. Your ability to have an erection b. Your ability to reach orgasm (would you describe the usual QU None at all	on? climax)? ALITY of  tivity I foreplay	your erections only	Very Poor to None  1  1  s during the	Poor Fair G 2 3 2 3 4 last 4 weeks 1 2 3 (Circle of 4	Very Good 4 5 4 5 ?	
How           How	a. Your ability to have an erection b. Your ability to reach orgasm (would you describe the usual QU None at all	climax)?  ALITY of  ctivity  I foreplay  ENCY of y  wanted or	your erections only	Very Poor to None  1  1  s during the	Poor Fair G 2 3 2 3 4 last 4 weeks 1 2 3 (Circle of 4	Very Good 4 5 4 5 ?	
How           How	a. Your ability to have an erection b. Your ability to reach orgasm (would you describe the usual QU None at all	climax)?  ALITY of  ctivity  I foreplay  ENCY of y  wanted or  LF the tin	your erections only your erections ne	Very Poor to None  1  1  s during the during the	Poor Fair G 2 3 2 3 Plast 4 weeks 1 2 3 (Circle of 4 Plast 4 weeks 1 2 3 (2) 4 Plast 4 weeks 1 2 4	Very Good 4 5 4 5 ? one number)	
How             	a. Your ability to have an erection b. Your ability to reach orgasm (would you describe the usual QU None at all	climax)?  ALITY of  ctivity  I foreplay  wanted or  LF the tin  ne time I v	your erections only your erections ne ne I wanted or wanted one	Very Poor to None I  1  1  s during the during the	Poor Fair G 2 3 2 3 2 last 4 weeks 1 2 3 (Circle of the content of	Very Good 4 5 4 5 ?	

64/

68/

11. O\	verall, how would you rate your ability to function sex	kually <b>during</b>	the last 4 weeks?
	Very poor	1	
	Poor	2	
	Fair	3	(Circle one number)
	Good	4	
	Very good	5	
12. O\	verall, how big a problem has your sexual function or during the last 4 weeks?	r lack of sexi	ual function been for you
	No problem	1	
	Very small problem	2	
	Small problem	3	(Circle one number)
	Moderate problem	4	
	Big problem	5	

13. How big a problem **during the last 4 weeks**, if any, has each of the following been for you? (Circle one number on each line)

	<u> </u>	No Problem	Very Small <u>Problem</u>	Small <u>Problem</u>	Moderate <u>Problem</u>	Big <u>Problem</u>	
a.	Hot flashes	0	1	2	3	4	74/
b.	Breast tenderness/enlargement	0	1	2	3	4	75/
C.	Feeling depressed	0	1	2	3	4	77/
d.	Lack of energy	0	1	2	3	4	78/
e.	Change in body weight	0	1	2	3	4	79/

#### **THANK YOU VERY MUCH!!**

# **Expanded Prostate Cancer Index Composite for Clinical Practice (EPIC-CP) Prostate Cancer Quality of Life (QOL)**

Patient Name:		•	iostate ca	ncer Quant	•	te of Birth:				
Physician:						ate of Visit:				
Patients: Please an	 swar tha f	ollowin	ng questions	by circling th	_	-		nuocti	ons are about	
your health and syr				-	ic app	oropriate answ	vci. Aii (	questi	ons are about	
Select ONE answer	•			LLNJ.						
1. Overall, how much		•		function hee	n for v	von3				
No Problem		small pr	<u> </u>	Small proble		Moderate	nrohlem		Big problem	
140110010111	VCIY	sman pr	Objetiti	Sman proble		Wioderate	problem		DIS PRODICIN	
2. Which of the follo	wing best	describ	es your urina	ry control?						
0-Total control				2-Frequent drik			No urinar	y contr	ol	
3. How many pads o	-					inary leakage?				
0-None			-	2-Two pads pe			Three or m	ore pa	ds	
4. How big a problen				_			Ţ		<u> </u>	
0-No problem		y small p		2-Small prob		3-Moderate p			Big problem	
	CLINICIANS:	Add the	answers from qu	iestions <b>2-4</b> to ca	lculate	the <b>Urinary Incont</b>	inence Syn	ptom S	Score (out of 12)	
5. How big a problen	n, if any, ha	s each								
			No problem	Very small pro	blem	Small problem	Mode prob		Big problem	
a. Pain or burning with ur	ination		0	1		2	3		4	
b. Weak urine stream/incomplete bladder emptying			0	1		2	3		4	
c. Need to urinate frequen			0	1		2	3		4	
CLINICIANS: ADD the answers from questions 5a-5c to calculate the Urinary Irritation/Obstructive Symptom Score (out of 12)										
6. How big a problen	n, if any, ha	s each								
			No problem	Very small prob	olem	Small problem	Mode probl		Big problem	
a. Rectal pain or urgency of movements			0	1		2	3		4	
b. Increased frequency of movements	your bowel		0	1		2	3		4	
c. Overall problems with y movements			0	1		2 3			4	
	(	LINICIAN	<b>S: ADD</b> the answ	vers from questio	ns <b>6a-6</b>	<b>c</b> to calculate the <b>I</b>	Bowel Sym	ptom S	core (out of 12)	
7. How do you rate y	our ability	to reac	h orgasm (cli	max)?						
0- Very good	1-Go	od	2-	-Fair		3-Poor	4-	-Very p	poor to none	
8. How would you de			unality of you	u avaatiana?						
•	escribe the		enough for m		2 Na	ot firm enough f	for only		4-None at	
0- Firm enough for			•	iasturbation		_	Of ally		all	
intercourse		and fo	геріау		sexu	al activity			all	
O Overell have moved	fb	lana baa		fatian anda	al. af a		base for			
9. Overall, how much	•	y small p	•	2-Small probl		3-Moderate p		•	Pig problem	
0-No problem	1-ver	y Sinan p	robiem	2-Small probl	em	3-Moderate p	говієні	4-6	Big problem	
10 Haw his a smahla	:f a l		f +h - f-ll-	ina baan fan						
10. How big a proble	m, ir any, i	ias eaci	No problem	Very small pro	-	Small problem	Mode	rato	Big problem	
				, ,	יטוכווו	·	prob	lem		
a. Hot flashes or breast tenderness/enlargement			0	1		2	3		4	
b. Feeling depressed			0	1		2	3		4	
c. Lack of energy	LINUCIANO	DD 46	0	1		2	3		4	
Ci	LINICIANS: AL	tne an שנ	swers from aues	รเบท ร <b>าบต-าบต</b> โด	caicula	te the Vitality/Hor	monai SVN	iptom S	core tout of 121	

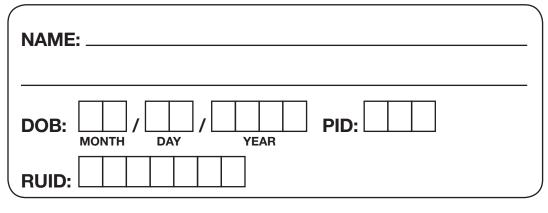


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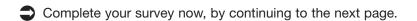


# Your Experiences with Cancer

- This survey is about the lasting effects of cancer and cancer treatments on the lives of those who have been diagnosed with cancer.
- The survey will ask about the effects of cancer, its treatment, or the lasting effects of that treatment on your employment, finances, health insurance coverage, and life in general. The goal of this survey is to help improve experiences of people diagnosed with cancer in the future. Please take the time to answer these questions about your experiences with cancer.
- ⇒ Your participation is voluntary and all of your answers will be kept confidential to the extent permitted by law. If you have any questions about this survey, please call Alex Scott at 1-800-945-MEPS (6377).
- The person named in the box below should complete this survey:



When you have completed this survey, fold it, then seal with this label and place it in the envelope provided.



Your responses will be kept confidential to the extent permitted by law, including AHRQ's confidentiality statute, 42 USC 299c-3(c). That law requires that information collected for research conducted or supported by AHRQ that identifies individuals or establishments be used only for the purpose for which it was supplied unless you consent to the use of the information for another purpose. Public reporting burden for this collection of information is estimated to average 20 minutes per response, the estimated time required to complete the survey. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to AHRQ Reports Clearance Officer Attention: PRA, Paperwork Reduction Project (0935-0118), AHRQ, 540 Gaither Road, Room #5036, Rockville, MD 20850.

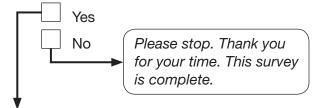


The Agency for Healthcare Research and Quality and The Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services

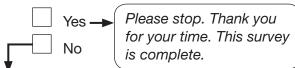


### **Section 1. Cancer History**

- This first section asks about your cancer history.
- Answer each question by marking X your response or filling in a number when necessary.
- 1. Have you ever been told by a doctor or other health professional that you had cancer or a malignancy of any kind?



2. Was your only cancer diagnosis or treatment before the age of 18?



3. Are you <u>currently</u> being treated for cancer – that is are you planning or recovering from cancer surgery, or receiving chemotherapy, radiation therapy, or hormonal therapy for your cancer?

Yes → GO TO Question 8
No

4. To the best of your knowledge, are you now free of cancer?

Yes
No
I don't know

About how long ago did you receive your last cancer treatment? Less than 1 year ago 1 year ago to less than 3 years ago 3 years ago to less than 5 years ago 5 years ago to less than 10 years ago 10 years ago to 20 years ago More than 20 years ago I have not been treated for cancer 6. Did a doctor or other health professional ever tell you that your cancer had come back? Yes No → GO TO Section 2, page 2 7. What was the most recent year a doctor or health professional told you that your cancer had come back? → GO TO Section 2, page 2 YEAR Is this the first time you have been treated for any type of cancer? Yes No

► Continue with Section 2, page 2.



# Section 2. Changes to Your Work Schedule

9. At any time from when you were first diagnosed with cancer until now, were you working for pay at a job or business?	Because of your cancer, its treatment or its lasting effects?  Some other reason?  GO TO Question 36, page 4  13. Did you make these work changes
Yes  No → GO TO Question 47, page 6  These next questions ask about different ways cancer, its treatment, or the lasting effects of that treatment may have affected your work – that is, your hours, duties, or employment status.  As you answer these questions, please think about the entire time from when you were first diagnosed with cancer to now.	Because of your cancer, its treatment or its lasting effects?  Some other reason? → GO TO Question 36, page 4  14. Did you ever take extended paid time off from work (vacation, sick time and/or disability leave)? By extended time off, we mean more than an occasional day off here and there.
▶ If you have had more than one type of cancer please think about your experiences across all of them. If that is not possible, please focus on the most severe, and if they were equally severe, please focus on the most recent.	No → GO TO Question 18, page 3  15. When did you take extended paid time off from work?  Mark   All that apply.
<ul> <li>10. At any time since your first cancer diagnosis, did you take extended paid time off from work, unpaid time off, or make a change in your hours, duties or employment status?</li> <li>Yes → GO TO Question 13</li> </ul>	At the time of diagnosis  During treatment  Less than one year after treatment was finished  One year or more after treatment was finished
11. At any time since your first cancer diagnosis, did you <u>ask</u> for extended paid time off from work, unpaid time off, or a change in your hours, duties or employment status?  Yes  No → GO TO Question 36, page 4	16. What do you estimate was the total amount of extended paid time off from work that you took?  Less than 2 months 2 months to less than 6 months 6 months to less than 1 year 1 year to 3 years

12. Did you ask for these work changes...

More than 3 years



17. Is your extended paid time off from 23. When did you change from working work ongoing? part-time to working full-time? Yes Mark X all that apply. Nο At the time of diagnosis 18. Did you ever take unpaid time off from During treatment work? Less than one year after treatment was finished Yes One year or more after treatment was No → GO TO Question 22 finished 19. When did you take unpaid time off 24. What do you estimate was the total from work? amount of time you worked full-time? Mark X all that apply. Less than 2 months At the time of diagnosis 2 months to less than 6 months During treatment 6 months to less than 1 year Less than one year after treatment was 1 year to 3 years finished More than 3 years One year or more after treatment was finished 25. Is this change ongoing? 20. What do you estimate was the total Yes amount of unpaid time off from work that Nο you took? 26. Did you ever change from working full-Less than 2 months time to working part-time? 2 months to less than 6 months Yes 6 months to less than 1 year No → GO TO Question 30, page 4 1 year to 3 years More than 3 years 27. When did you change from working full-time to working part-time? 21. Is your unpaid time off ongoing? Mark **X** all that apply. Yes At the time of diagnosis No During treatment 22. Did you ever change from working Less than one year after treatment was part-time to working full-time? finished Yes One year or more after treatment was finished No → GO TO Question 26



28.	What do you estimate was the total amount of time you worked part-time?	33. When did you change to a less demanding job?
	Less than 2 months	Mark 🗷 all that apply.
	2 months to less than 6 months	At the time of diagnosis
	6 months to less than 1 year	During treatment
	1 year to 3 years  More than 3 years	Less than one year after treatment was finished
29.	Is this change ongoing?	One year or more after treatment was finished
	Yes	IIIIsried
	□ No	34. How long did you stay in the less demanding job?
30.	Did you ever change from a set work	Less than 2 months
	schedule, where you start and end at the same time every day, to a flexible	2 months to less than 6 months
	work schedule, where your start and	6 months to less than 1 year
	end times vary from day-to-day?	1 year to 3 years
	Yes	More than 3 years
	No → GO TO Question 32	35. Is this change ongoing?
31.	When did you change to a flexible work schedule?	Yes
	Mark X all that apply.	∟ No
	At the time of diagnosis	36. Did you make any other type of work arrangements because of your cancer,
	During treatment	its treatment, or the lasting effects of
	Less than one year after treatment was finished	that treatment?  Yes
	One year or more after treatment was finished	No → GO TO Question 37, page 5  → Please describe:
32.	Did you ever change to a less demanding job?	
	Yes	
	No → GO TO Question 36	



37. Because of your cancer, its treatment, or the lasting effects of that treatment, did you ever decide not to pursue an	Section 3. Other Aspects of Work
advancement or promotion?  Yes  No	Please continue to think about all your work experiences from the time you were first diagnosed with cancer to now.
38. Because of your cancer, its treatment, or the lasting effects of that treatment, did you retire earlier than you had planned?  ☐ Yes → GO TO Section 3  No	▶ If you have had more than one type of cancer please think about your experiences across all of them. If that is not possible, please focus on the most severe, and if they were equally severe, please focus on the most recent.
39. Because of your cancer, its treatment, or the lasting effects of that treatment, did you delay retirement beyond when you had planned?  Yes No	<ul> <li>40. Did you ever feel that your cancer, its treatment, or the lasting effects of that treatment interfered with your ability to perform any physical tasks required by your job?</li> <li>Yes</li> <li>No</li> <li>I was never required to perform physical tasks as part of my job</li> </ul>
	<ul> <li>41. Did you ever feel that your cancer, its treatment, or the lasting effects of that treatment interfered with your ability to perform any mental tasks required by your job?  Yes No</li> <li>42. Did you ever feel that, because of your cancer, its treatment, or the lasting effects of that treatment, you were loss productive at work?</li> </ul>
	less productive at work?  Yes  No



43. Did you ever worry that, because of	Section 4. Caregivers
the effects of cancer on your health, you might be forced to retire or quit work before you are ready?  Yes No	This section is about caregivers, meaning friends or family members who may have provided help with getting to the doctor, going to appointments with you, making decisions about treatment, or providing other types of care and support during or
<ul> <li>44. Did you ever stay at a job in part because you were concerned about losing your health insurance?</li> <li>Yes</li> <li>No → GO TO Question 46</li> <li>45. Were you concerned about losing your health insurance because of your cancer?</li> <li>Yes</li> </ul>	<ul> <li>Please continue to think about the time you were first diagnosed with cancer to now.</li> <li>If you have had more than one type of cancer please think about your experiences across all of them. If that is not possible, please focus on the most severe, and if they were equally severe, please focus on the most recent.</li> <li>48. Since the time you were first</li> </ul>
No  46. Thinking about your work life or career, what effect has your experience with cancer, its treatment, or the lasting effects of that treatment had on it?  Mostly positive effect  Mostly negative effect  Equally positive and negative effect  Neither positive nor negative effect	diagnosed with cancer, has any friend or family member provided care to you during or after your cancer treatment?  Yes
47. Did your spouse or significant other ever stay at a job in part because he/she was concerned about losing health insurance for the family?  Yes  No  Does not apply	No → GO TO Question 63, page 8



50.	Did any of your caregivers ever take extended paid time off from work, unpaid time off, or make a change in their hours, duties, or employment status for at least 2 months?	<ul><li>56. Is this caregiver's unpaid time off ongoing?</li><li>Yes</li><li>No</li></ul>
	Yes  No → GO TO Question 63, page 8	57. Did any of your caregivers change from working part-time to working full-time?
51.	Did any of your caregivers take extended paid time off from work (vacation and/or sick time)?	Yes  No → GO TO Question 60
Г	Yes	58. How long do you estimate this caregiver worked full-time?
<b>\</b>	No → GO TO Question 54	2 months to less than 6 months
52.	How long do you estimate this caregiver took extended paid time off from work?	6 months to less than 1 year
		1 year to 3 years
	2 months to less than 6 months	More than 3 years
	6 months to less than 1 year  1 year to 3 years	59. Is this change ongoing?
	More than 3 years	Yes
	_	No
53.	Is this caregiver's extended paid time off from work ongoing?	OO Bill and for a second and a second
	Yes	60. Did any of your caregivers change from working full-time to working part-time?
	No	Yes
54.	Did any of your caregivers take unpaid time off from work?	No → GO TO Question 63, page 8
Г	Yes	61. How long do you estimate this caregiver worked part-time?
	No → GO TO Question 57	2 months to less than 6 months
₹ 55.	How long do you estimate this care-	6 months to less than 1 year
	giver took unpaid time off from work?	1 year to 3 years
	2 months to less than 6 months	More than 3 years
	6 months to less than 1 year	
	1 year to 3 years	62. Is this change ongoing?
	More than 3 years	☐ Yes
		No



63.	Did any of your caregivers make any other type of work arrangements because of your cancer, its treatment,	Section 5. Experiences with Health Insurance
	or the lasting effects of that treatment?  Yes  No	► The next few questions are about health insurance coverage from the time you were first diagnosed with cancer to now.
_	GO TO Question 64   I don't know   GO TO Question 64   Please describe:	▶ If you have had more than one type of cancer please think about your experiences across all of them. If that is not possible, please focus on the most severe, and if they were equally severe, please focus on the most recent.
		67. At any time from when you were first diagnosed with cancer to now, were you covered by health insurance that paid for all or part of your medical care, tests or cancer treatment?
64.	Because of your cancer, its treatment, or the lasting effects of that treatment,	Yes No I don't know    GO TO Question 70
	did any of your caregivers change to a less demanding job?	68. Was there ever a time when health insurance refused to cover a visit for your cancer to the doctor or facility of
	☐ Yes	your choice?
		your choice:
	No Ldon't know	Yes
65.	I don't know  Because of your cancer, its treatment,	
65.	I don't know	Yes No Does not apply  69. Was there ever a time when health
65.	I don't know  Because of your cancer, its treatment, or the lasting effects of that treatment,	Yes No Does not apply
65.	I don't know  Because of your cancer, its treatment, or the lasting effects of that treatment, did any of your caregivers retire early?  Yes  No	Yes No Does not apply  69. Was there ever a time when health insurance refused to cover a second
	Because of your cancer, its treatment, or the lasting effects of that treatment, did any of your caregivers retire early?  Yes  No  I don't know	Yes No Does not apply  69. Was there ever a time when health insurance refused to cover a second opinion about your cancer?
	Because of your cancer, its treatment, or the lasting effects of that treatment, did any of your caregivers retire early?  Yes No I don't know  Because of your cancer, its treatment, or the lasting effects of that treatment, did any of your caregivers delay	Yes No Does not apply  69. Was there ever a time when health insurance refused to cover a second opinion about your cancer? Yes No I never asked for a second opinion  70. Were you ever denied health insurance
	Because of your cancer, its treatment, or the lasting effects of that treatment, did any of your caregivers retire early?  Yes  No  I don't know  Because of your cancer, its treatment, or the lasting effects of that treatment, did any of your caregivers delay retirement?	Yes No Does not apply  69. Was there ever a time when health insurance refused to cover a second opinion about your cancer? Yes No I never asked for a second opinion  70. Were you ever denied health insurance coverage because of your cancer?
	Because of your cancer, its treatment, or the lasting effects of that treatment, did any of your caregivers retire early?  Yes No I don't know  Because of your cancer, its treatment, or the lasting effects of that treatment, did any of your caregivers delay	Yes No Does not apply  69. Was there ever a time when health insurance refused to cover a second opinion about your cancer? Yes No I never asked for a second opinion  70. Were you ever denied health insurance



# Section 6. The Effects of Cancer and Its Treatment on Finances

- The next questions ask about different kinds of financial burden you or your family may have experienced because of your cancer, its treatment, or the lasting effects of that treatment.
- Please continue to think about all the time from when you were first diagnosed with cancer to now.
- ▶ If you have had more than one type of cancer please think about your experiences across all of them. If that is not possible, please focus on the most severe, and if they were equally severe, please focus on the most recent.
- 71. Have you or has anyone in your family had to borrow money or go into debt because of your cancer, its treatment, or the lasting effects of that treatment?

Г	 Yes	
1	No <b>→ GO TO Question</b>	<b>7</b> 4

72. How much did you or your family borrow, or how much debt did you incur because of your cancer, its treatment, or the lasting effects of that treatment?

Less than \$10,000
\$10,000 to \$24,999
\$25,000 to \$49,999
\$50,000 to \$74,999
\$75,000 to \$99,999
\$100,000 or more

73.	Did you or your family ever file for bankruptcy because of your cancer, treatment, or the lasting effects of the treatment?	
	Yes No	
74.	Have you or your family had to make any other kinds of financial sacrifices because of your cancer, it treatment, or the lasting effects of the treatment?	
	Yes  No <b>→ GO TO Question 75</b>	
75.	Have you ever worried about having pay large medical bills related to you cancer?	
	☐ Yes ☐ No	
76.	Please think about medical care visit for cancer, its treatment, or the lasti effects of that treatment. Have you ever been unable to cover your share of the cost of those visits?  Yes	ng
	No	

► Continue with Section 7, page 10.



# Section 7. Medical Care for Cancer

- These next questions ask about certain experiences you may have had when receiving medical care for cancer from the time you were first diagnosed to now.
- If you have had more than one type of cancer please think about your experiences across all of them. If that is not possible, please focus on the most severe, and if they were equally severe, please focus on the most recent.
- 77. At any time since you were first diagnosed with cancer, did any doctor or other healthcare provider, including your current healthcare provider, ever discuss with you...

dis	scuss with you
a.	The need for regular follow-up care and monitoring even after completing your treatment?
	Discussed it with me in detail
	Briefly discussed it with me
	Did not discuss it at all
	I don't remember
b.	Late or long-term side effects of cancer treatment you may experience over time?
	Discussed it with me in detail
	Briefly discussed it with me
	Did not discuss it at all
	I don't remember
c.	Your emotional or social needs related
	to your cancer, its treatment, or the lasting effects of that treatment?
	Discussed it with me in detail
	Briefly discussed it with me
	Did not discuss it at all
	I don't remember
d.	Lifestyle or health recommendations such as diet, exercise, quitting smoking?
	Discussed it with me in detail
	Briefly discussed it with me
	Did not discuss it at all

I don't remember

_		Yes <b>→ GO TO Section 8,</b> µ No	page 11	
<b>∳</b> 79.	or yo	hich of these are reasons ot get all of the medical ca treatments you or a doct	are, test or belie	ts,
		ark 🗷 yes or no for ch item below.	Cason.	W <sub>SO</sub> N
	a.	Couldn't afford care		
	b.	Insurance company wouldn't approve or pay for care		
	c.	Doctor did not accept your insurance		
	d.	Had problems getting to doctor's office		
	e.	Couldn't get time off from work		
	f.	Didn't know where to go to get care		
	g.	Couldn't get child care/adult care		
	h.	Didn't have time, care/ test/treatment took too long		
	i.	Other reason		
	r	f you answered 'Yes' to only reason in Question 79, GO TO on page 11. Otherwise continuation 80, on page 11.	Section 2	າ 8



80. Which one of these is the main reason that you did not get all of the medical care, tests, or treatments you or a doctor believed you needed?

Ma	rk 🗷 ONE only.		
	Couldn't afford care Insurance company wouldn't approve		The last few questions i about how your cancer, the lasting effects of the have influenced certain
	or pay for care  Doctor didn't accept your insurance  Had problems getting to the doctors' office  Couldn't get time off from work		If you have had more the cancer please think abo across all of them. If the please focus on the moswere equally severe, ple most recent.
	Didn't know where to go to get care  Couldn't get child care/adult care  Didn't have time, care/test/treatment took too long  Some other reason.  Please describe:	▼ 82.	Did your cancer, its to lasting effects of that limit the kind or amout do outside of work, so child care, exercising around the house, an Yes  No → GO TO Quest How long were you or limited in the kind or taken and the limited of the limited of the last transfer of the limited in the kind or taken and the limited of the limited in the kind or taken and
			daily activities?  Less than 6 months 6 months to less th 1 year to less than 3 years to less than 5 years to less than More than 10 years Is this limitation ongo
			Yes

# **Section 8. The Effects of Cancer and Its Treatment** on Life in General

- in the survey ask its treatment and at treatment may parts of your life.
- an one type of out your experiences at is not possible, st severe, and if they ase focus on the
- reatment, or the t treatment ever ant of activities you such as shopping, g, studying, work d so on?

		No → GO TO Question 84
2.	limi	v long were you or have you been ited in the kind or amount of usual ly activities?
		Less than 6 months
		6 months to less than 1 year
		1 year to less than 3 years
		3 years to less than 5 years
		5 years to less than 10 years
		More than 10 years
3.	ls t	his limitation ongoing?
		Yes

84. Did you ever feel that your cancer, its treatment, or the lasting effects of that treatment interfered with your ability to perform any mental tasks as part of your usual daily activities?

Yes
No

No



a doctor or other healthcare provider because of your cancer, its treatment, or the lasting effects of that treatment?	91. In your own opinion, what do you think are the chances that your cancer will come back or get worse within the next 10 years?
Yes	Very low
No → GO TO Question 87	Fairly low
86. Did you ever <u>receive</u> help getting to a	Moderate
doctor or other healthcare provider?	Fairly high
Yes	Very high
No	I don't know
87. Have you ever <u>asked</u> for help understanding health insurance or medical bills related to your cancer, its treatment, or the lasting effects of that treatment?	92. Have any of the following been positive things about your experiences with your cancer, its treatment, or the lasting effects of that treatment?
Yes	Mark 🗷 yes or no for each item below.
No → GO TO Question 89	Yes No
88. Did you ever <u>receive</u> help understanding health insurance or medical bills?	a. It has made me a stronger person
☐ Yes ☐ No	b. I can cope better with life's challenges
89. How often do you worry that your cancer may come back or get worse?	c. It became a reason to make positive changes in my life
Never → GO TO Question 91	d. It has made me have healthier habits
Rarely	
Sometimes	93. Please use the space below to tell us anything else about your experiences
Often	with cancer.
All the time	
90. How often do you worry that if your cancer came back or got worse it might keep you from fulfilling responsibilities at home or at work?	
Never	
Rarely	
Sometimes	
Often	
All the time	

- ► Thank you for completing this survey. Please place this survey in the envelope provided to you and give it to the MEPS interviewing team member.
- If the interviewer is no longer available, place the survey in the return envelope provided to you by the interviewer. If the envelope is missing, mail this survey to:

MEPS c/o Westat 1600 Research Blvd, Room GA51 Rockville, MD 20850



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#### **NCCN Distress Thermometer and Problem List for Patients**

#### NCCN DISTRESS THERMOMETER PROBLEM LIST Please indicate if any of the following has been a problem for you in the past week including today. Be sure to check YES or NO for each. YES NO Practical Problems YES NO Physical Problems Instructions: Please circle the number (0-10) that best □ Child care Appearance describes how much distress you have been experiencing in Housing Bathing/dressing the past week including today. Insurance/financial Breathing Transportation Changes in urination Constipation Work/school Treatment decisions Diarrhea **Extreme distress** Eating 9 Family Problems □ Fatigue ■ Dealing with children ☐ Feeling swollen Dealing with partner Fevers 7 -■ Ability to have children Getting around Family health issues Indigestion 6 Memory/concentration 5 **Emotional Problems** Mouth sores Depression Nausea Nose dry/congested Fears Nervousness Pain 3 Sadness □ Sexual 2 -Worry Skin dry/itchy Sleep Loss of interest in usual activities Substance abuse No distress Tingling in hands/feet Spiritual/religious concerns Other Problems:

Version 1.2016, 05/06/16. The NCCN Clinical Practice Guidelines (NCCN Guidelines) are a statement of evidence and consensus of the authors regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult the NCCN Guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment. The National Comprehensive Cancer Network® (NCCN®) makes no representations or warranties of any kind regarding their content, use or application and disclaims any responsibility for their application or use in any way. The NCCN Guidelines are copyrighted by National Comprehensive Cancer Network®. All rights reserved. The NCCN Guidelines and the illustrations herein may not be reproduced in any form without the express written permission of NCCN. ©2016.

#### The Patient Health Questionnaire-2 (PHQ-2) - Overview

The PHQ-2 inquires about the frequency of depressed mood and anhedonia over the past two weeks. The PHQ-2 includes the first two items of the PHQ-9.

- The purpose of the PHQ-2 is not to establish final a diagnosis or to monitor depression severity, but rather to screen for depression in a "first step" approach.
- Patients who screen positive should be further evaluated with the PHQ-9 to determine whether they meet criteria for a depressive disorder.

#### **Clinical Utility**

Reducing depression evaluation to two screening questions enhances routine inquiry about the most prevalent and treatable mental disorder in primary care.

#### Scoring

A PHQ-2 score ranges from 0-6. The authors<sup>1</sup> identified a PHQ-2 cutoff score of 3 as the optimal cut point for screening purposes and stated that a cut point of 2 would enhance sensitivity, whereas a cut point of 4 would improve specificity.

#### **Psychometric Properties**<sup>1</sup>

Major	Depressiv	e Disorde	(7% prevalence)	Any Dep	oressive Disor	der (18% p	orevalence)
PHQ-2 Score	Sensitivity	Specificity	Positive Predictive Value (PPV*)	PHQ-2 Score	Sensitivity	Specificity	Positive Predictive Value (PPV*)
1	97.6	59.2	15.4	1	90.6	65.4	36.9
2	92.7	73.7	21.1	2	82.1	80.4	48.3
3	82.9	90.0	38.4	3	62.3	95.4	75.0
4	73.2	93.3	45.5	4	50.9	97.9	81.2
5	53.7	96.8	56.4	5	31.1	98.7	84.6
6	26.8	99.4	78.6	6	12.3	99.8	92.9

<sup>\*</sup> Because the PPV varies with the prevalence of depression, the PPV will be higher in settings with a higher prevalence of depression and lower in settings with a lower prevalence.

<sup>1.</sup> Kroenke K, Spitzer RL, Williams JB. The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener. Medical Care 2003, (41) 1284-1294.

## The Patient Health Questionnaire-2 (PHQ-2)

Patient Name	Dat	e of Visit		
Over the past 2 weeks, how often have you been bothered by any of the following problems?	Not At all	Several Days	More Than Half the Days	Nearly Every Day
Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed or hopeless	0	1	2	3

#### The Patient Health Questionnaire (PHQ-9) - Overview

The PHQ-9 is a multipurpose instrument for screening, diagnosing, monitoring and measuring the severity of depression:

- The PHQ-9 incorporates DSM-IV depression diagnostic criteria with other leading major depressive symptoms into a brief self-report tool.
- The tool rates the frequency of the symptoms which factors into the scoring severity index.
- Question 9 on the PHQ-9 screens for the presence and duration of suicide ideation.
- A follow up, non-scored question on the PHQ-9 screens and assigns weight to the degree to which depressive problems have affected the patient's level of function.

#### **Clinical Utility**

The PHQ-9 is brief and useful in clinical practice. The PHQ-9 is completed by the patient in minutes and is rapidly scored by the clinician. The PHQ-9 can also be administered repeatedly, which can reflect improvement or worsening of depression in response to treatment.

#### Scoring

See PHQ-9 Scoring on next page.

#### **Psychometric Properties**

- The diagnostic validity of the PHQ-9 was established in studies involving 8 primary care and 7 obstetrical clinics.
- $\blacksquare$  PHQ scores  $\ge$  10 had a sensitivity of 88% and a specificity of 88% for major depression.
- PHQ-9 scores of 5, 10, 15, and 20 represents mild, moderate, moderately severe and severe depression.¹

#### The Patient Health Questionnaire (PHQ-9) Scoring

#### Use of the PHQ-9 to Make a Tentative Depression Diagnosis:

The clinician should rule out physical causes of depression, normal bereavement and a history of a manic/hypomanic episode

#### Step 1: Questions 1 and 2

Need one or both of the first two questions endorsed as a "2" or a "3" (2 = "More than half the days" or 3 = "Nearly every day")

#### Step 2: Questions 1 through 9

Need a total of five or more boxes endorsed within the shaded area of the form to arrive at the total symptom count. (Questions 1-8 must be endorsed as a "2" or a "3"; Question 9 must be endorsed as "1" a "2' or a "3")

#### Step 3: Question 10

This question must be endorsed as "Somewhat difficult" or "Very difficult" or "Extremely difficult"

# Use of the PHQ-9 for Treatment Selection and Monitoring Step 1

A depression diagnosis that warrants treatment or a treatment change, needs at least one of the first two questions endorsed as positive ("more than half the days" or "nearly every day") in the past two weeks. In addition, the tenth question, about difficulty at work or home or getting along with others should be answered at least "somewhat difficult"

#### Step 2

Add the total points for each of the columns 2-4 separately

(Column 1 = Several days; Column 2 = More than half the days; Column 3 = Nearly every day. Add the totals for each of the three columns together. This is the Total Score

The Total Score = the Severity Score

#### Step 3

Review the Severity Score using the following TABLE.

PHQ-9 Score	Provisional Diagnosis	Treatment Recommendation  Patient Preferences should be considered
5-9	Minimal Symptoms*	Support, educate to call if worse, return in one month
10-14	Minor depression ++ Dysthymia* Major Depression, mild	Support, watchful waiting Antidepressant or psychotherapy Antidepressant or psychotherapy
15-19	Major depression, moderately severe	Antidepressant or psychotherapy
>20	Major Depression, severe	Antidepressant and psychotherapy (especially if not improved on monotherapy)

<sup>\*</sup> If symptoms present ≥ two years, then probable chronic depression which warrants antidepressants or psychotherapy (ask "In the past 2 years have you felt depressed or sad most days, even if you felt okay sometimes?")

<sup>++</sup> If symptoms present ≥ one month or severe functional impairment, consider active treatment

## The Patient Health Questionnaire (PHQ-9)

Patient Name Date of Visit								
yo	ver the past 2 weeks, how often have u been bothered by any of the llowing problems?	Not At all	Several Days	More Than Half the Days	Nearly Every Day			
1.	Little interest or pleasure in doing things	0	1	2	3			
2.	Feeling down, depressed or hopeless	0	1	2	3			
3.	Trouble falling asleep, staying asleep, or sleeping too much	0	1	2	3			
4.	Feeling tired or having little energy	0	1	2	3			
5.	Poor appetite or overeating	0	1	2	3			
6.	Feeling bad about yourself - or that you're a failure or have let yourself or your family down	0	1	2	3			
7.	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3			
8.	Moving or speaking so slowly that other people could have noticed. Or, the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3			
9.	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3			
	Column Totals + +							
_	Add Totals Togo	etner						
10	. If you checked off any problems, how difficult have Do your work, take care of things at home, or get Not difficult at all Somewhat difficult Ue	•	h other p	•				

# The Memorial Anxiety Scale for Prostate Cancer

#### Validation of a New Scale to Measure Anxiety in Men with Prostate Cancer

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**BACKGROUND.** The psychological difficulties facing men with prostate cancer are acknowledged widely, yet identifying men who may benefit from mental health treatment has proven to be a challenging task. The authors developed the Memorial Anxiety Scale for Prostate Cancer (MAX-PC) to facilitate the identification and assessment of men with prostate cancer-related anxiety. This scale consists of three subscales that measure general prostate cancer anxiety, anxiety related to prostate specific antigen (PSA) levels in particular, and fear of recurrence.

**METHODS.** Ambulatory men with prostate cancer (n=385 patients) were recruited from clinics throughout the United States. Prior to routine PSA tests, participants completed a *baseline* assessment packet that included the Hospital Anxiety and Depression Scale; the Distress Thermometer; the Functional Assessment of Cancer Therapy Scale, Prostate Module; and measures of role functioning, sleep, and urinary functioning. PSA values from the last three tests also were collected. Follow-up evaluation was completed within 2 weeks after patients learned of their PSA test result using a subset of these scales.

**RESULTS.** Analysis of the MAX-PC revealed a high degree of internal consistency and test-retest reliability for the total score and for the three subscales, although reliability was somewhat weaker for the PSA Anxiety Scale. Concurrent validity was demonstrated by correlations between the MAX-PC and measures of anxiety. Overall changes in PSA levels were correlated only modestly with changes in MAX-PC scores (correlation coefficient, 0.13; P = 0.02).

**CONCLUSIONS.** The MAX-PC appears to be a valid and reliable measure of anxiety in men with prostate cancer receiving ambulatory care. *Cancer* 2003;97:2910–8. © 2003 American Cancer Society.

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#### KEYWORDS: anxiety, cancer, prostate, scale development.

The prostate is the most common site of cancer in older males in the U.S. An estimated 198,100 new cases of prostate cancer are diagnosed annually, 80% of which occur in men older than 65 years. Not only does a diagnosis of prostate cancer entail uncertainties regarding the possibility of functional disabilities or even death, but these older men also are experiencing the losses related to the later phase of the life cycle. Although the psychological toll is high, reactions to a diagnosis of prostate cancer vary widely, from a healthy acceptance of both the diagnosis and the treatment to reactions of marked anxiety, depression, hopelessness, and general distress. In one study, nearly one-third of men with prostate cancer in a genitourinary medical clinic had levels of psychological distress that met criteria for a diagnosis of anxiety disorder.<sup>2</sup>

Several factors influence reactions to a prostate cancer diagnosis, including prior psychological adjustment, social support, economic

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resources, and other life changes or events (e.g., loss of spouse, recent or impending retirement). 3-5 However, despite the high prevalence rate, there has been remarkably little systematic research concerning the nature of psychological distress and the prevalence of psychiatric disorders in this population. 6-8 Sources of distress commonly noted include sexual dysfunction, urinary incontinence, bowel dysfunction, weakness, fatigue, hot flashes, and pain. 9-11 In addition, many individuals experience profound changes in their mood, irritability, and anxiety due to either the disease or its treatment. 3,5,12-16

Although the psychological needs and psychiatric symptoms of men with prostate cancer are important, securing mental health evaluation and treatment for this population has presented difficulties.2 Compared with patient assessments, urologists underestimate patient symptoms that cause impairment of quality of life.17 Oncologists and oncology nurses often are reluctant to ask patients about psychological problems and frequently fail to recognize symptoms of depression, even when they are severe. 4,18,19 Many elderly men with cancer are reluctant to acknowledge their emotional distress and/or seek treatment because of both embarrassment and stigma. Doctors often learn of their patients' distress from spouses, who also have high levels of distress.3,20 Distress also may manifest as complaints of physical symptoms rather than acknowledging the psychological origin of these complaints. Perhaps most commonly, men with prostate cancer express their anxiety through concerns about their prostate specific antigen (PSA) levels. Concern about PSA levels is common and troubling, because the levels herald disease progression. Weeks before their actual tests, men are anxious and sometimes delay testing or request repeated PSA testing to assure that the results are correct.21

To improve the recognition and assessment of anxiety related to prostate cancer and PSA levels, we developed a self-report measure, the Memorial Anxiety Scale for Prostate Cancer (MAX-PC). A 24-item scale was designed to tap 3 aspects of prostate-cancer related anxiety: general anxiety related to prostate cancer and treatment, fear of recurrence, and anxiety specifically related to PSA testing. This scale incorporated items from the Fear of Recurrence Scale developed by Kornblith and colleagues<sup>22,23</sup> and modified items from the Breast Cancer Anxiety Questionnaire developed by Kash and Jacobsen<sup>24</sup> as well as new items generated by clinical experts.

The MAX-PC was administered initially to a sample of 66 men with prostate cancer to assess item clarity, ease of completion, and psychological reactions to the content. New items were then generated

from patient feedback on the initial versions of the scale. These items were intended to form three distinct subscales: a Prostate Cancer Anxiety Subscale, a PSA Anxiety Subscale, and a Fear of Recurrence Subscale. Although the reactions to this pilot sample were quite positive, six items were deleted, two items were added, and the wording of two items was modified based on patients' comments concerning lack of clarity of the item.

The current study was designed to provide initial validation for a 24-item measure in a large sample of ambulatory men with prostate cancer. Specifically, we administered the MAX-PC along with several measures to test reliability and validity (concurrent and discriminant). In addition, we assessed patients both before and shortly after learning the results of a PSA test to assess the consistency of the MAX-PC over time and its sensitivity to changing PSA levels.

#### MATERIALS AND METHODS

Patients were recruited from genitourinary clinics throughout the U.S. These sites all were institutions and group practices that participate in clinical trial research for AstraZeneca Pharmaceuticals (the Astra-Zeneca Pharmaceutical Research Consortium of Oncology Investigators). No financial support was provided by AstraZeneca to any of the participating investigators for the conduct of this study. All patients were eligible to participate in this study if they were being monitored with regular PSA tests, were older than 18 years, and were English-speaking. All patients were informed of the nature of the study, including relevant risks and benefits, and provided written informed consent. The study was approved by the institutional review boards of Memorial Sloan-Kettering Cancer Center and the AstraZeneca Pharmaceutical Research Consortium.

After patients provided informed consent (usually during the patient's clinic visit just prior to having blood drawn for PSA testing), study participants were given a packet of seven questionnaires and were asked to complete these questionnaires while they waited to see their physician. In addition to the MAX-PC, the measures administered at study entry included the Hospital Anxiety and Depression Scale (HADS), a 14item self-rated questionnaire that has been tested extensively in cancer populations, with Depression and Anxiety Subscales of 7 items each;<sup>25–29</sup> the Distress Thermometer, a recently developed visual analogue scale<sup>4</sup> on which scores range from 0 (no distress) to 10 (extreme distress); the Functional Assessment of Cancer Therapy Scale, Prostate Module (FACT-P), developed by Cella and colleagues, 30-32 which is a qualityof-life questionnaire that includes a 27-item core

quality-of-life measure (the FACT Quality-of-Life Scale [FACT-G]) grouped into four subscales (Physical Well-Being, Social/Family Well-Being, Emotional Well-Being, and Functional Well-Being), and 12 items specific to prostate cancer (FACT-P); the Role Functioning and Sleep Subscales of another quality-of-life measure, the Medical Outcomes Survey (MOS) Short Form 36;<sup>33</sup> the Urinary Function Subscale of the Quality-of-Life in Prostate Cancer measure developed by Litwin and colleagues;9 and a brief sociodemographic34 and medical questionnaire (including PSA values from the last 3 tests drawn). After completing the baseline assessment, participants were given another set of questionnaires (the MAX-PC, the HADS, and the Distress Thermometer) with instructions to complete these measures within 1 week after they were informed of their PSA test result (the follow-up assessment). Completed questionnaires were mailed to the data coordinator at each of the participating sites.

#### Statistical Analyses

Descriptive statistics were used to characterize the sample with regard to demographic and clinical characteristics. Scale properties for the MAX-PC scale were evaluated using several methods, including the coefficient  $\alpha$  and the item-total correlation (r) to assess internal consistency, an analysis of individual items to assess the validity and specificity of each item, and test-retest reliability coefficients. Exploratory factor analysis (using a principal components extraction method and varimax rotation) was used to assess the extent to which the scale fit the initially intended three-factor model. Concurrent and discriminant validity was assessed by correlational analyses (i.e., correlation of the MAX-PC with measures of psychological distress and physical functioning). Longitudinal data also were analyzed to ascertain whether changes in MAX-PC scores corresponded to changes in other measures of psychosocial functioning or actual changes in PSA levels.

#### **Sample Characteristics**

Three hundred eighty-five men completed the assessment at study entry. The average age of participants was 71.05 years (standard deviation, 9.3 years; range, 40-93 years). The majority of participants were Caucasian (n=319 patients; 86.2%) and were married at the time of participation (n=306 patients; 82.7%) (Table 1). Roughly half of the men in the sample were classified with organ-confined disease (n=188 patients; 54.6%; T1 or T2, N0, and M0), whereas 92 patients (26.7%) had locally advanced disease (T3 or T4, N0, and M0), and 64 patients (18.6%) had metastatic prostate carcinoma (T3 or T4, N1–N3, and Ma–Mc;

TABLE 1 Demographic and Medical Characteristics

Variable <sup>a</sup>	No. of patients	%
Race		
Caucasian	319	86.2
African American	35	9.5
Other	16	4.3
Marital status		
Married	306	82.7
Single	11	3.0
Divorced, separated, widowed	53	14.3
Education		
Less than high school	46	12.5
High school graduate	84	2.9
Partial college	82	22.3
College or graduate degree	155	42.2
Disease stage		
Organ-confined disease	188	54.6
Locally advanced disease	92	26.7
Metastatic disease	64	18.6
Baseline PSA level		
None detectable	22	6.2
< 2 ng/ml	244	68.9
2-10 ng/ml	56	15.8
> 10 ng/ml	32	9.0
Medical history		
Prostatectomy	177	48.8
Radiation therapy	251	70.5
Seed implants	315	89.5
Orchiectomy	332	94.9
Hormonal therapy	215	61.1
Other chemotherapy	337	95.7

PSA: prostate specific antigen.

these data were missing for 41 patients). The average Karnofsky performance rating for the sample was 96.5, with only 2 patients (0.6%) who had a rating < 70 and 7 patients (2%) who had a rating < 80.

Follow-up data were available for 348 participants, representing 90% of the original sample. The average time between baseline and follow-up assessments was 13.7 days (standard deviation, 10.0 days; median, 12 days; time between assessments was not available for 52 participants). A small (but unknown) percentage of patients returned the Time 2 questionnaire before they learned of their PSA results, which likely attenuated the correlation between changes in PSA levels and changes in MAX-PC scores; however, these questionnaires could not be identified reliably and, thus, were included in the data analysis. Even among questionnaires that were returned after patients learned of their follow-up PSA results, the vast majority of study participants had little change in PSA levels between baseline and follow-up assessments. For the purpose of data analysis, participants were

<sup>&</sup>lt;sup>a</sup> All demographic data were missing for 15 patients.

TABLE 2 Internal Consistency of Total Score and Subscales

	Origina	al 24-item scale	-item scale Modified 18-it	
Subscale	α	Item-total r	α	Item-total r
Total score	0.89	0.13-0.67	0.89	0.26-0.68
Prostate Cancer Anxiety (Subscale 1)	0.90	0.38-0.72	0.90	0.58 - 0.71
PSA Anxiety (Subscale 2)	0.56	0.26-0.45	Not modified	_
Fear of Recurrence (Subscale 3)	0.76	-0.08 - 0.69	0.82	0.59-0.72

 $\alpha$ : Correlation  $\alpha$ ; r: item total correlation; PSA: prostate specific antigen.

classified with *no change* in their PSA levels if the magnitude of change in PSA levels was < 2 ng/ml in either direction. Of the 385 patients available for this analysis, 278 patients (72.2%) were classified with no change in their PSA level. Only 24 patients (6.2%) had increases  $\ge 2 \text{ ng/ml}$  in their PSA levels, whereas 83 patients (21.6%) had decreases  $\ge 2 \text{ ng/ml}$ . The median change in PSA levels was 0, with a range of + 100 to - 107. Because of the presence of extreme scores, these data were converted to ranks for correlational analyses (i.e., Spearman correlation coefficients  $[r_s]$ ).

#### **RESULTS**

#### Analysis of the Original 24-Item MAX-PC

A reliability analysis of the original 24-item MAX-PC revealed a number of problematic items that led to subsequent modification and shortening of the scale (Table 2). The coefficient  $\alpha$  for the total score (24 items) was 0.89, with a median item-total correlation of 0.57 (range, 0.13–0.67). The coefficient  $\alpha$  values for the three subscales were 0.90 for the Prostate Cancer Anxiety Subscale, 0.56 for the PSA Anxiety Subscale, and 0.76 for the Fear of Recurrence Subscale. The median item-total correlations for the three subscales were 0.61 (range, 0.38–0.72), 0.44 (range, 0.26–0.45), and 0.54 (range, – 0.08–0.69), respectively.

Results of the initial factor analysis of the 24-item scale generated a somewhat confusing set of results. An analysis of the scree plot suggested both a three-factor model and a five-factor model, yet six factors had Eigen values > 1.0. However, an inspection of the five-factor and six-factor solutions revealed several single-item factors with seemingly little interpretive significance. Given these findings, coupled with our a priori design of the questionnaire to fit a three-factor model, we chose to analyze the three-factor solution (Table 3).

Analysis of the initial three-factor solution demonstrated considerable consistency with the three

TABLE 3 Rotated Factor Loadings

	Init	lysis	Modified factor analysis			
Item	1	2	3	1	2	3
1	0.67	0.09	0.16	0.67	0.05	0.15
2	0.50	0.37	0.15	0.65	0.17	0.07
3	0.77	0.03	0.10	0.72	0.07	0.23
4	0.46	0.33	0.13	_	_	_
5	0.67	0.24	0.01	0.73	0.14	0.08
6	0.54	-0.05	0.05	_	_	_
7	0.68	0.24	0.12	0.67	0.13	0.06
8	0.75	0.03	0.21	0.70	0.11	0.21
9	0.77	0.16	0.13	0.72	0.11	0.16
10	0.72	0.05	0.17	0.60	0.19	0.20
11	0.60	0.36	0.09	0.50	0.32	0.34
12	0.65	0.29	0.00	0.71	-0.01	0.24
13	0.75	0.04	0.25	0.75	-0.02	0.25
14	0.53	-0.01	0.15	_	_	_
15	0.04	0.57	0.20	0.01	0.62	0.29
16	0.30	0.49	0.10	0.18	0.71	0.01
17	0.23	0.59	0.04	0.12	0.67	0.04
18	0.12	0.05	0.76	0.09	0.12	0.82
19	0.07	0.19	-0.67	_	_	_
20	0.39	0.09	0.76	0.25	0.13	0.82
21	0.25	0.19	0.51	0.25	0.00	0.72
22	-0.06	0.00	0.56	_	_	_
23	0.02	0.55	0.25	_	_	_
24	0.32	0.21	0.66	0.31	0.16	0.73

subscales that were supposed to comprise the MAX-PC but with several items that did not load significantly on any factor. Of the 14 items that were supposed to comprise the Prostate Cancer Anxiety Subscale, 13 items had loadings  $\geq 0.5$  on the first factor, and no items had higher loading on a different factor. Likewise, two of the three PSA Anxiety Subscale items had loadings > 0.5 on the second factor (and the third item loading was 0.49), and five of the seven Fear of Recurrence Subscale items had loadings > 0.5 on the third factor (one item from this subscale had a higher loading on the second factor).

TABLE 4
The Modified 18-Item Memorial Anxiety Scale for Prostate Cancer

YOUR FEELINGS ABOUT PROSTATE CANCER AND PROSTATE SPECIFIC ANTIGEN TESTS

We would like to better understand how patients cope with aspects of their treatment for prostate cancer and the medical tests frequently involved in their care.

I. Below is a list of comments made by men about prostate cancer. Please indicate by circling the number next to each item how frequently these comments were true for you during the past week; not at all, rarely, sometimes, often.

)	Not at all	Donoles	Comotimos	Often
1	Not at all	Rarely	Sometimes	Often
1. Any reference to prostate cancer brought up strong	0	i	0	
feelings in me.	0	1	2	3
2. Even though it's a good idea, I found that getting a	0	i	0	
PSA test scared me.	0	1	2	3
3. Whenever I heard about a friend or public figure				
with prostate cancer, I got more anxious about my				
having prostate cancer.	0	1	2	3
4. When I thought about having a PSA test, I got more				
anxious about my having prostate cancer.	0	1	2	3
5. Other things kept making me think about prostate				
cancer.	0	1	2	3
6. I felt kind of numb when I thought about prostate				
cancer.	0	1	2	3
7. I thought about prostate cancer even though I didn't				
mean to.	0	1	2	3
8. I had a lot of feelings about prostate cancer, but I				
didn't want to deal with them.	0	1	2	3
9. I had more trouble falling asleep because I couldn't				
get thoughts of prostate cancer out of my mind.	0	1	2	3
10. I was afraid that the results from my PSA test would				
show that my disease was getting worse.	0	1	2	3
11. Just hearing the words "prostate cancer" scared me.	0	1	2	3
II. For the next three questions, please indicate how frequently these si	tuations have EVER been true for	or you.		
	Not at all	Rarely	Sometimes	Often
12. I have been so anxious about my PSA test that I		·		
have thought about delaying it.	0	1	2	3
13. I have been so worried about my PSA test result				
that I have thought about asking my doctor to				
repeat it.	0	1	2	3
14. I have been so concerned about my PSA test result				-
that I have thought about having the test repeated				
at another lab to make sure they were accurate.	0	1	2	3
and and and the state of the st	-	-	=	-

III. Listed below are a number of statements concerning a person's beliefs about their own health. In thinking about the past week, please indicate how much you agree or disagree with each statement: strongly agree, disagree, or strongly disagree. Please circle the number of your answer.

	Strongly agree	Agree	Disagree	Strongly disagree
15. Because cancer is unpredictable, I feel I cannot				
plan for the future.	0	1	2	3
16. My fear of having my cancer getting worse gets in				
the way of my enjoying life.	0	1	2	3
17. I am afraid of my cancer getting worse.	0	1	2	3
18. I am more nervous since I was diagnosed with				
prostate cancer	0	1	2	3

PSA: prostate specific antigen.

#### Analysis of the Modified 18-item MAX-PC

After reviewing the initial reliability data and factor analysis results as well as the correlations between individual items and measures used to assess concurrent validity (not reported here), a modified and abbreviated version of the original scale was derived (Table 4). This revised scale omitted 3 of the 14 items from the Prostate Cancer Anxiety Subscale and 3 of 7 items from the Fear of Recurrence Subscale. The three-item PSA Anxiety Subscale was retained in its entirety.

Reliability data for the modified version of the

TABLE 5 Correlations with the Prostate Specific Antigen Anxiety Scale (Modified 18-item version)

Variable	MAX-PC total score	Prostate cancer anxiety (Subscale 1)	PSA anxiety (Subscale 2)	Fear of recurrence (Subscale 3)
HADS total score	0.52	0.43	0.20	0.53
HADS Anxiety	0.57	0.51	0.21	0.50
HADS Depression	0.31	0.20	0.12	0.43
Distress Thermometer	0.45	0.43	0.08	0.37
Quality of life total	-0.28	-0.24	-0.15	-0.40
Urinary functioning	-0.06	-0.04	-0.05	-0.09
Sleep disturbance	-0.20	-0.15	-0.06	-0.25
Daily activities	0.06	0.06	0.05	0.14
Age	-0.13	-0.19	-0.07	0.03
Education	-0.13	-0.09	-0.01	-0.18
Karnofsky performance	-0.01	0.01	0.09	-0.10

MAX-PC: Memorial Anxiety Scale for Prostate Cancer; PSA: prostate specific antigen; HADS: Hospital Anxiety and Depression Scale.

MAX-PC were slightly better compared with reliability data for the original scale. The coefficient  $\alpha$  for the revised 18-item scale was 0.89, with a median itemtotal correlation of 0.59 (range, 0.26–0.68; see Table 2). The coefficient  $\alpha$  for the two modified subscales (Prostate Cancer Anxiety and Fear of Recurrence) were 0.90 (median item-total correlation, 0.65; range, 0.58–0.71) and 0.82 (range, 0.59–0.72), respectively.

Test-retest reliability (for the 18-item scale) was established by comparing MAX-PC scores at the baseline and follow-up assessments (an average of 10 days). Test-retest reliability was 0.89 (95%CI, 0.87–0.91) for the total score, 0.83 (95%CI, 0.79–0.86) for the Prostate Cancer Anxiety Subscale, 0.74 (95%CI, 0.67–0.79) for the PSA Anxiety Subscale, and 0.98 (95%CI, 0.97–0.98) for the Fear of Recurrence Subscale.

Principal components factor analysis of the revised 18-item scale clearly supported the 3-factor model, because the scree plot, Eigen values, and factor loadings all supported the expected 3-factor solution. This solution was highly consistent with the original questionnaire design (Table 3). All 11 items from the Prostate Cancer Anxiety Subscale had factor loadings  $\geq 0.5$  on factor 1, and 10 items had loadings  $\geq 0.60$ ; whereas all 3 items from the PSA Anxiety Subscale loaded onto factor 2 with loadings  $\geq 0.60$ , and the 4 Fear of Recurrence items loaded on factor 3 with loadings > 0.7.

#### **Concurrent and Discriminant Validity**

Total scores on the MAX-PC (revised 18-item version) were correlated significantly with several measures of anxiety that were administered concurrently (Table 5).

Specifically, MAX-PC total scores were correlated highly with HADS total scores (r=0.52; P<0.0001), scores on the Anxiety Subscale of the HADS (r=0.57; P<0.0001), and the Distress Thermometer (r=0.45; P<0.0001). The correlation between MAX-PC total scores and the HADS Depression Subscale, as expected, was lower compared with the correlation observed for the Anxiety Subscale, although this correlation remained significant (r=0.31; P<0.0001). Significant, albeit modest, negative associations also were observed between MAX-PC scores and scores on a measure of sleep quality (r=-0.20; P=0.0002) and overall quality of life (r=-0.28; P<0.0001).

There was no correlation between MAX-PC scores and absolute PSA levels at baseline ( $r_s = 0.02$ ; P = 0.69). In addition, anxiety levels did not differ among participants who did or did not undergo prior prostatectomy (r = -0.06; P = 0.29). Likewise, there was no association between MAX-PC total scores and scores on measures of overall physical functioning (i.e., Karnofsky performance score: r = -0.01; P = 0.83; MOS Role Functioning Subscale: r = 0.06; P= 0.25), or urinary functioning (r = -0.06; P = 0.23). There was no difference in MAX-PC scores depending on stage of disease (F[2,338] = 0.58; P = 0.56). However, there were small but statistically significant associations between MAX-PC scores and age (r = -0.13; P = 0.01) as well as education (r = -0.13; P= 0.01).

#### **Subscale Characteristics**

Analysis of the MAX-PC subscales indicated that the Prostate Cancer Anxiety Subscale appeared to tap anxiety much more specifically than the other subscales, whereas the Fear of Recurrence Subscale was more sensitive to psychological distress broadly defined (Table 5). Both the Prostate Cancer Anxiety Subscale and the Fear of Recurrence Subscale were highly (and comparably) associated with the HADS Anxiety Subscale (r = 0.51 and r = 0.50, respectively; P < 0.0001respectively) and the distress thermometer (r = 0.43and r = 0.37, respectively; P < 0.0001). However, the Fear of Recurrence Subscale was correlated highly with the HADS total score (r = 0.53; P < 0.0001), the Depression Subscale of the HADS (r = 0.43; P< 0.0001), overall quality of life (r = -0.40; P < 0.0001), and scores on the measure of sleep disturbance (r = -0.25; P < 0.0001). Conversely, the Prostate Cancer Anxiety Subscale was not correlated as highly (although all correlations were statistically significant) with any of these measures (HADS Depression Subscale: r = 0.20; P = 0.0002; quality-of-life measure: r = -0.28; P < 0.0001; sleep disturbance: r= -0.15; P = 0.004). The PSA Anxiety Subscale was

TABLE 6 Correlations with Prostate Specific Antigen Anxiety Based on Longitudinal Analyses (Modified 18-item version)

Variable	MAX-PC total score	Prostate cancer anxiety (Subscale 1)	PSA anxiety (Subscale 2)	Fear of recurrence (Subscale 3)
PSA value <sup>a</sup>	0.13	0.18	0.02	-0.02
HADS total score	0.30	0.28	0.00	0.12
HADS Anxiety	0.39	0.37	-0.02	0.14
HADS Depression	0.09	0.07	0.03	0.06

MAX-PC: Memorial Anxiety Scale for Prostate Cancer; PSA: prostate specific antigen; HADS: Hospital Anxiety and Depression Scale.

associated less clearly with any of the measures administered, although the strongest and only significant associations were with the HADS total score and the HADS subscales.

#### **Longitudinal Analyses**

Although we anticipated that patients with rising PSA levels would display more PSA-related anxiety when they were retested, this hypothesis received only limited support (Table 6). Overall changes in PSA levels (calculated as the difference between PSA levels before and after the baseline assessment) were correlated modestly with changes in MAX-PC scores (the followup score minus the baseline score:  $r_s = 0.13$ ; P = 0.02). An analysis of the three MAX-PC subscales indicated that the Prostate Cancer Anxiety Subscale was much more sensitive to changes in PSA levels compared with the other two subscales. There was a significant correlation between changes in scores for the Prostate Cancer Anxiety Subscale and PSA changes ( $r_s = 0.18$ ; P= 0.002), but there was no correlation between PSA changes and scores for the other two subscales (PSA Anxiety Subscale:  $r_s = 0.02$ ; P = 0.67; Fear of Recurrence Subscale:  $r_s = -0.02$ ; P = 0.72).

Significant associations also were found between changes in the MAX-PC score and the other measures of anxiety and psychological distress. Changes in the MAX-PC total score were associated significantly with changes in the HADS total score (r=0.30; P<0.0001) and with changes in the HADS Anxiety Subscale (r=0.39; P<0.0001). However, there was no significant correlation between changes in the HADS Depression Subscale and MAX-PC total scores (r=0.09; P=0.09). The Prostate Cancer Anxiety Subscale of the MAX-PC also appeared to be more sensitive to changes over time compared with the other two subscales, with significant correlations between this subscale and the HADS total score (r=0.28; P<0.0001) and the HADS

Anxiety Subscale (r=0.37; P<0.0001), but not the HADS Depression Subscale (r=0.07; P=0.20). The correlations between changes in the HADS total scores and subscales and the other two MAX-PC subscales were considerably smaller and were largely nonsignificant (Table 6).

#### DISCUSSION

The MAX-PC was designed to provide a brief, effective method for detecting anxiety in men with prostate cancer. This study, which represents a first attempt at providing validation for the MAX-PC, demonstrated considerable support for the utility of this measure, albeit in a modified and somewhat abbreviated form. Based on data from a large, representative sample drawn from across the U.S., we observed a high degree of reliability for the MAX-PC (i.e., internal consistency and test-retest reliability) as well as concurrent and discriminant validity. We observed substantial correlations between the MAX-PC and measures of other anxiety and distress, lower (but still significant) correlations with measures of depression and sleep disturbance, and no correlation with measures of urinary functioning, physical functioning, or other medical variables that should not necessarily correlate with anxiety (e.g., PSA level and disease stage).

The MAX-PC was designed to assess three different aspects of prostate-related anxiety, including anxiety related to prostate cancer in general (the Prostate Cancer Anxiety Subscale), anxiety specifically focused on PSA testing (the PSA Anxiety Subscale), and fears of cancer recurrence (the Fear of Recurrence Subscale). Factor analysis clearly supported the anticipated 3-factor model, with all items (in the modified 18-item scale) loading on the intended factors. Associations with measures of concurrent and discriminant validity revealed an interesting pattern of differences across the three subscales. The Prostate Cancer Anxiety Subscale appeared to tap anxiety much more specifically than the other factors (higher correlations with measures of anxiety and lower correlations with measures of depression, sleep disturbance, quality of life, etc.). The Fear of Recurrence Subscale, conversely, appeared to tap psychological distress more generally, because correlations with depression and quality of life were considerably higher, almost as high as the correlations with measures of anxiety. Empirical support for the PSA Anxiety Subscale, however, was somewhat weaker, leading us to revise the wording of these questions for future applications of the scale (described further below).

Results from the longitudinal component of the study were somewhat more difficult to interpret. Patients completed the study instruments shortly before

<sup>&</sup>lt;sup>a</sup> Spearman correlation coefficients.

they had blood drawn for their PSA test and again after they learned the results of that test (typically about 2 weeks later). We observed a significant (although quite modest) correlation between changes in PSA levels and changes in MAX-PC scores, as expected, particularly on the Prostate Cancer Anxiety Subscale (changes in PSA Anxiety Subscale and Fear of Recurrence Subscale scores were not associated with changes in PSA levels). However, as noted above, a small percentage of patients returned the Time 2 questionnaire before they learned of their PSA results, which likely decreased our ability to find significant changes over time (i.e., attenuating the correlation between changes in PSA levels and changes in MAX-PC scores). These correlations also may have been more modest than anticipated, because the patients demonstrated little change in PSA levels (75% of patients had no substantial change in PSA level). Thus, although we anticipated that anxiety levels would change substantially over time because of changing medical status, this group of patients may be described more accurately as medically stable, supporting our use of longitudinal data for establishing test-retest reliability.

Although the results based on our original 24-item scale certainly were encouraging, several items were eliminated after preliminary analyses indicated that they were either unnecessary or ineffective at capturing the intended construct. The resulting 18-item scale appears to have even stronger empirical support compared with our original scale, particularly given the importance of brevity in clinical research. We also chose, on the basis of these analyses, to change the wording of the three items that comprise the PSA Anxiety Subscale. These items, which originally were conceived in a behavioral framework (e.g., Have you ever delayed going for your next PSA test because you were too anxious about it?), rarely were endorsed by our sample (hence the low reliability and validity data for this subscale). In light of this observation, we elected to reword these items to reflect (as noted in Table 4) an attitudinal framework (e.g., *Have you ever* considered delaying a PSA test because you were too anxious about it?) in hopes of increasing the applicability for most patients. Although the impact of this change in wording is unknown, we anticipate improved reliability and validity data for this subscale.

Despite the strong initial support for the overall MAX-PC in terms of both reliability and validity, the current results are tempered by several methodological limitations. First, although we attempted to stratify recruitment to include equal proportions of patients with early disease and advanced disease, the majority of patients had organ-confined or locally advanced disease and stable PSA levels. Hence, it is unclear how

the scale properties may differ in a population with more advanced disease. Certainly, the possibility of observing changes in anxiety as disease status changes is more likely in a population in which the disease status actually is changing. Perhaps more importantly, we anticipate that the MAX-PC (and the Fear of Recurrence Subscale in particular) may be more useful in differentiating general anxiety from anxiety specific to prostate cancer in a population of acutely ill patients. Nevertheless, further research using the MAX-PC will be needed to understand the utility of this scale more fully.

A second significant issue in terms of our validation data concerns the lack of any psychiatric assessment of the patients studied. Without a clinical diagnosis, it is not possible to determine which patients may meet the criteria for a diagnosis of an anxiety disorder. Thus, we are unable to establish *cut-off scores* to identify patients who may benefit from a referral for psychiatric consultation and/or antianxiety medications. Again, further research will be needed to assess the sensitivity and specificity of the MAX-PC using various cut-off scores.

Despite these limitations, we believe the MAC-PC represents a useful mechanism for identifying and quantifying anxiety in men with prostate cancer. This growing population has long been difficult to engage in psychiatric/psychosocial interventions, although these patients are subject to much psychological distress as a result of both diagnosis and treatment of their disease. The ability to rapidly screen and identify patients who may be experiencing significant anxiety certainly is needed and may facilitate clinical research efforts aimed at treating these troubling symptoms and minimizing the impact of anxiety on overall quality of life for men with prostate cancer.

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# SF-12v2<sup>™</sup> Health Survey

(SF-12 v2 Standard, US Version 2.0)

#### To be completed by the PATIENT

Today's Date (MM/DD/YY)

Identification Number	
Identification Number	
Event	

Mark only one answer for each question.

**Directions:** This survey asks for your views about your health. This information will help you keep track of how you feel and how well you are able to do your usual activities. If you need to change an answer, completely erase the incorrect mark and fill in the correct circle. If you are unsure about how to answer a question, please give the best answer you can.

Shade circles like Not like this:	Shade circles like this: ● Not like this: ⊗			Please do not mark outside the circles or make stray marks on the questionnaire.				
01. In general, would you say your health is:	Excellent	Very Good	Good	Fair	Poor			
The following questions are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?	Yes, limited a lot	Yes, limited a little	No, not limited at all					
02. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	0	0	0					
03. Climbing several flights of stairs	$\bigcirc$	<u> </u>	<u> </u>					
During the <u>past 4 weeks</u> , how much of the time have you had any of the following problems with your work or other regular daily activities <u>as a result of your physical health</u> ?	All of the time	Most of the time	Some of the time	A little of the time	None of the time			
04. Accomplished less than you would like								
05. Were limited in the kind of work or other activities	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$			
During the <u>past 4 weeks</u> , how much of the time have you had any of the following problems with your work or other regular daily activities <u>as a result of any emotional problems</u> (such as feeling depressed or anxious)?	All of the time	Most of the time	Some of the time	A little of the time	None of the time			
06. Accomplished less than you would like								
07. Did work or activities less carefully than usual	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$			
08. During the <u>past 4 weeks</u> , how much did <u>pain</u> interfere with your normal work (including both work outside the home and housework)?	Not at all	A little bit	Moder	ately Quite a bit	Extremely			
These questions are about how you feel and how things have been with you during the <u>past 4 weeks</u> . For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the <u>past 4 weeks</u>	All of the time	Most of the time	Some of the time	A little of the time	None of the time			
09. Have you felt calm and peaceful		$\bigcirc$						
10. Did you have a lot of energy	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$			
11. Have you felt downhearted and depressed	0	0			0			
12. During the <u>past 4 weeks</u> , how much of the time has your <u>physical health or emotional problems</u> interfered with your social activities (like visiting friends, relatives, etc.)?	$\circ$	$\bigcirc$	$\circ$	$\circ$	0			



